

# ALUMNI NEWS

CARLETON UNIVERSITY

VOLUME 6, NUMBER 2

FALL 1986

**ALUMNI  
WEEKEND**

September 26-28, 1986

SEE CENTRE PAGES FOR DETAILS



Carleton Grads "On the Steps" of Parliament



# "The Loon and the Fish" by Kananginak



K

World renowned Eskimo artist, Kananginak of Cape Dorset, Northwest Territories is one of seven famous Canadian artists whose work is now available in a special edition. His latest work is shown here.

An exclusive arrangement between the West Baffin Eskimo Cooperative and the Mintmark Press enables you for the first time to have the work of a famous Eskimo artist at a popular price.

Each specially commissioned print measures 19 3/4" x 26" and is reproduced on fine art paper to the highest standards of quality and craftsmanship.

These works are not available in any other form. The Mintmark Edition is the only edition. Each print comes to you with Mintmark Press's guarantee: if not completely delighted with your acquisition, your money will be cheerfully refunded.

Beautiful graphics from the following artists also available:



A Kenojuak



B Pudlo



C Kananginak



D Pitseolak



E Pitseolak




F Lucy



G Jamasie



I Lucy

 This mark, which appears on each print along with the stonecutter's "chop" mark and the artist's own symbol, is the official emblem of the West Baffin Eskimo Cooperative, Cape Dorset, northwest Territories.



This is the seal of Mintmark Press, a Canadian firm specializing in the high-quality reproduction of fine art. Mintmark Press has exclusive rights to reproduce specially-commissioned prints by members of the West Baffin Eskimo Cooperative.

Please send me the following Cape Dorset Eskimo print reproductions at \$23.95 each or \$88.00 for any four, plus \$4.85 for handling and shipping (overseas: \$7.50). Ontario residents add 7% sales tax. Indicate quantities: ● ● ● ● ●

A B C D E F G H I K

Cheque or money order to Alumni Media enclosed:

Charge to my Master Charge, Visa or American Express Account No.

Name

Street

Apt.

Expiry date:

City

Prov.

P. Code

Signature

Alumni Media, 124 Ava Rd., Toronto, Ontario M6C 1W1 (416) 781-6661

**UNCONDITIONAL MONEY-BACK GUARANTEE.**

If you are not satisfied, please return your purchase to us and your money will be returned (*less handling and postage*).

# ALUMNI NEWS



## CARLETON UNIVERSITY

Volume 6, Number 2

Fall 1986



### FEATURE REPORT 16

The alumni on our cover don't jostle each other in the tunnels on campus anymore, but they do cross paths regularly in the corridors of the House of Commons. When they gathered for this photo before the Peace Tower in June, the old school song "On the Steps of Carleton", suitably paraphrased, seemed an appropriate way of describing the occasion. For a look at who's who and what they're doing, see our feature report in this issue.

ISSN 0226-5389  
Carleton University  
Ottawa, Canada  
K1S 5B6

Published by the Alumni Relations Office

Editor: Richard Austen  
Through the Years: Kathy Ruggiero  
Cover Photo: John Przybytek

Views expressed or implied do not necessarily reflect those of the entire University community or the Alumni Association.

Your views, questions, comments and other suggestions are welcome. Submissions should be addressed to the Editor, Alumni News, at the above address.

**ABOUT CAMPUS** 4  
Carleton helps with fellowship. . . Convocation. . . Les Copely named Dean of Science. . . Monique Bégin comes to Carleton. . . In Memoriam. . . Be fit at Carleton. . .

**ARTS** 6  
**Journalism Poll Widely Used**  
Alan Frizzell heads polling team  
**Shepherd on Music**  
John Shepherd and popular music

**ENGINEERING** 8  
**Breakthrough for Chinese Keyboard**  
Research associate develops new keyboard program  
**Aerospace Electronics**  
Jim Wight *et al* on radars and education  
**Bowen Gets Sperry Award**  
Archie Bowen's effort pays off for Carleton

**SCIENCE** 10  
**Particles Attract Physicists**  
Robert Carnegie and NRC physicists head for Switzerland  
**Summer Science Projects**  
Science faculty sponsors scholarships for high school students

**ALUMNI WEEKEND** 12  
Photo highlights of the best weekend ever.

**SOCIAL SCIENCES** 14  
**Lab Studies Secrets of Sleep**  
Bob Hoffmann and Al Moffit study why we sleep and dream  
**High Tech Connections**  
John Callahan makes headway with Management Centre

**CONTINUING EDUCATION** 18  
**Carleton Popular with Seniors**  
Elderhostel program a summer favourite

**ASSOCIATION NEWS** 19  
New Alumni Council. . . Report on 1985-86

**ALUMNI PROFILE** 20  
**Politician's Life for Boyer**  
Patrick Boyer enjoys life in Parliament

**ALUMNI NEWS** 21  
Through the years. . . News & Moves. . .



# Development Viewpoint

by Kim McCuaig, Director  
Development and Alumni Services



As you no doubt know as alumni, Carleton is constantly asking for ongoing financial support. This is necessary if we are to continue to develop the kinds of programs that will provide the resources Canada needs to remain intellectually, technologically, and economically competitive in the world.

In 1954, Philip Reid, former Chairman of the Board of Governors of General Electric and of the Foundation's Board of Trustees, introduced a novel, corporate philanthropic idea called Gift Matching. In the three decades since, more than 1,000 corporations in North America have established matching gift programs.

Officials in participating companies take pride in the synergism created between the company and its employees while also making significant contributions to higher education.

What are matching gifts? Gift matching is an arrangement through which an employee makes an eligible gift to an eligible institution and the gift is matched by the employer. The employer's contribution typically duplicates the employee's gift on a dollar for dollar basis. However, some employers match two or three times the employee's gift.

How does a matching gift program work? Does the corporation that you work for have one? Companies can design a matching gift program to meet their own needs, but most programs usually operate in the same general way. Usually, employees obtain an application form from the employer, fill it out and send it along with their gift to the university of their choice. Some companies omit this step, and only require a photocopy of the donor's receipt when the application is made to have the gift matched. Some application forms have a section the employee must submit to the company for approval before sending a matched gift to an institution. The University returns part of the application form to the employer, certifying receipt of the employee's gift, its status as a registered charitable institution, and its eligibility under the criteria set forth by the company. The company, upon receiving the information from the university, sends the matching gift.

Who is eligible? Eligibility is usually extended to some or all of the employees, management, directors, spouses and even retired employees.

Corporations are beginning these programs all the time, so if your employer is not one of them, you could do one of two things. First, suggest that your employer begins one. We would be happy to provide an outline of matching gift programs from other corporations for them. Second, check to see whether or not they do have one that we are not aware of.

What about the size of gifts that qualify? Many companies set a minimum and maximum limit on matching gifts. A common minimum matching gift is \$25. Maximum gifts range from \$100 to \$15,000.

A program such as this benefits the University as it doubles the gifts made by you. This year, when you make your contribution to Carleton, I hope you will seriously consider whether there is a potential for a matching gift from your employer.

## Alumni News & Notes

by Richard Austen, Alumni Relations Officer



The Development and Alumni Services Office was established over the summer months by amalgamating the Development and Alumni Relations Offices.

Everything from our room number (we're now in Room 510, Administration Building) to our telephone number (you can reach us at 564-2800) has changed.

More significantly, the change means that the alumni office is now considered within the context of the University's overall development planning and strategy.

It means that the alumni office has access to a broader range of support and resources than was previously available, and that means better service for alumni and the Alumni Association.

Over the past year, the alumni office provided support for branch activities in Toronto, including a spring reception there; organized a lunch with a guest speaker in Ottawa; co-ordinated and organized the fall's Alumni Weekend program; updated records for the University's 42,000 plus graduates; wrote and edited the Alumni News magazine; and provided executive services for the Alumni Council and its committees.

The office helped to arrange meetings with alumni leaders and senior university officials as well as student leaders. These contacts are leading to productive new programs that provide a strong and meaningful role for alumni and the Alumni Association in the University community.

The Alumni Association is entering an exciting and challenging phase in its development.

The University is strengthening its support for the Association as it recognizes the benefits of having a strong and supportive alumni at its side.



Former Res students are reminded to reserve July 31-August 1, 1987 on their calendars to mark the 25th anniversary of Carleton University Residence.

The weekend promises to be a great opportunity to renew old ties, and to recapture the nostalgia of life on 10th Glen, 2nd Renfrew (or wherever).

To be sure you receive all the program information, send your name, address, telephone, and years you were in residence to the address below. Ideas are welcome too, and be sure to pass the word along to former roommates and floormates you're still in touch with.

For information, and to be on the mailing list, write:

Residence Reunion  
Box 25  
Carleton University  
Ottawa, Ontario  
K1S 5B7

announcing  
The Carleton University Press  
**Book Club**

a special offer for Carleton University Alumni only

Explore new worlds of intellect with  
Carleton University Press.

You'll receive five books for only \$2.00 (to cover shipping and handling) after your application for membership is accepted. All you have to do to have your application accepted is sign up to take the first book:

A *Strange Manuscript Found in a Copper Cylinder*, for the book club members' price of \$19.99 (list price will be \$24.95) before the publication date of December 1, 1986 (hardcover or casebound).

Thereafter, we'll send you periodically the Club's bulletin describing the coming selection. Each selection will be offered to book club members at a reduced price prior to the publication date. If you wish the described selection, just fill out the convenient form always provided and mail it in by the deadline with your payment. These books make excellent and unusual gifts — as a book club member you may purchase as many copies of each selection at you wish.

As a member you need buy only four books at regular low Club prices during the coming two years. You may resign any time thereafter or continue to enjoy Club benefits for as long as you wish.

Whenever you purchase five more selections you will be offered a bonus book selection of five books from which to choose the one you may receive as a gift (if you wish).

### A Strange Manuscript Found in a Copper Cylinder

James De Mille's *Strange Manuscript Found in a Copper Cylinder*, first published in 1888 but written much earlier, probably in the late 1860's, is a fantasy combining romantic adventure and anti-Utopian satire. Its main setting is an imaginary land at the South Pole inhabited by a strange race, the Kosekin, who regard death as the greatest boon of humankind, abhor wordly pleasure and riches, and have an aristocracy of paupers. In this semi-tropical dinosaurs range through the Carboniferous forests and lurk in the seas. Kosekin-land is described by an English sailor in a manuscript picked up by four Englishmen becalmed on a yacht in the Atlantic; the yachtsmen furnish a commentary of the main story by reading and discussing the sailor's fantastic account.

De Mille's fantasy is here presented for the first time in a scholarly edition. The text, a critically established version of the first serial edition that appeared in *Harper's Weekly*, is closer to De Mille's manuscript than the Harpers book edition, which has hitherto been the only available text of the novel. This volume includes an introduction tracing the history of the novel from composition through publication to critical reception, a textual introduction, and extensive explanatory notes on the text.

CHOOSE ANY FIVE (5) VINTAGE BOOKS from this list for only \$2.00 handling fee with your initial order.

- 1 **CRISIS OF QUEBEC 1914-1918**, Elizabeth Armstrong
- 2 **LAURIER**, J. W. Dafoe
- 3 **CONTINENTAL COMMUNITY**, W.A. Axline
- 4 **THE UNREFORMED SENATE OF CANADA**, R.A. MacKay
- 5 **THE COURTS AND THE CANADIAN CONSTITUTION**, W.R. Lederman
- 6 **MONEY AND BANKING IN CANADA**, E.P. Neufeld
- 7 **CANADIAN FOREIGN POLICY 1955-1965**, A.E. Blanchette
- 8 **THE CANADIAN COMMERCIAL REVOLUTION**, Gilbert Tucker
- 9 **LIFE & TIMES OF SIR ALEXANDER T. GALT**, Oscar Skelton
- 10 **THE CANADIAN SOCIAL STRUCTURE**, John Porter
- 11 **CANADIAN FOREIGN POLICY 1966-1976**, A.E. Blanchette
- 12 **GROWTH AND THE CANADIAN ECONOMY**, T.N. Brewis

**Carleton University Press Bookclub:** Please accept my application for membership in the Carleton University Press Bookclub. Send me the five books I have numbered in the boxes below, plus the first offering of the Bookclub: *A strange Manuscript Found in a Copper Cylinder*. My cheque or money order for \$21.99 is enclosed. (Please make your cheque payable to Carleton University Press.) I agree to the Club Plan as described in this ad. I will take four more books at regular low Club prices in the coming two years, and may resign any time thereafter. The Carleton University Press Bookclub offers serious works for mature readers — and represents some of the best contemporary scholarship and thinking in Canada.

TO: Fulfillment Department, Carleton University Press Bookclub, Carleton University, Ottawa, Ontario, K1S 5B6.

Ms.  
Mr.  
Miss  
Mrs.

PLEASE PRINT

Address \_\_\_\_\_ Apt # \_\_\_\_\_

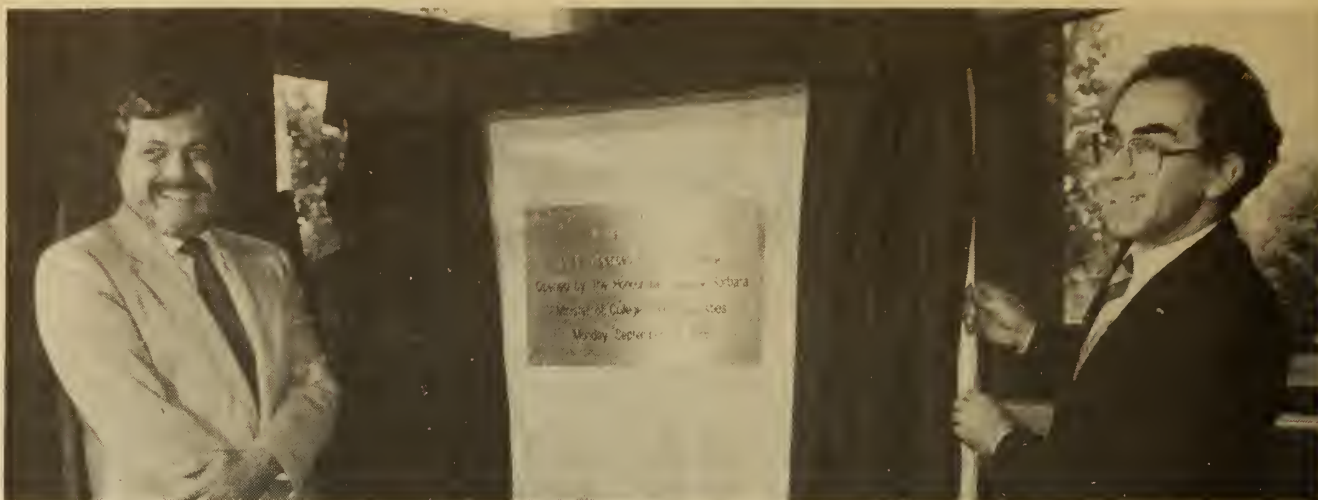
City \_\_\_\_\_

Province/State \_\_\_\_\_ Postal Code \_\_\_\_\_

Country (if other than Canada) \_\_\_\_\_

Free Books (Please circle selections): 1 2 3 4 5 6 7 8 9 10 11 12





Ontario Minister of Colleges and Universities Greg Sorbara (right) was on hand for the official opening of the new Social Sciences Research Building on September 22. Dean of Social Sciences, Dennis Forcese, assisted in the unveiling of a commemorative plaque marking the occasion.

## Carleton Helps With Fellowship

Carleton University and the University of Ottawa have been selected by the International Development Research Centre (IDRC) to operate IDRC's \$800,000-a-year Pearson Fellowship program.

Beginning this fall, up to 20 outstanding young public servants from developing countries will study public administration at the two universities each year.

The program is designed specially by Carleton's School of Public Administration, and the University of Ottawa's Faculty of Administration.

The fellowship program is based on the premise that bright, young professionals with at least three years of government experience in developing countries will benefit from formal study in public administration and from relating their practical experience to theory.

"It is these administrative skills that will become increasingly important to the fellows as they advance in the public services of their respective countries," says Allan Maslove, Director of Carleton's School of Public Administration.

"Specifically, the program will explore policy and program issues and problems in developing countries and possible solutions to those problems. It will encourage in Pearson Fellows an analysis of their situation as public administrators, by drawing out the questions to be asked and point them in the direction of where and how to get answers."

The Pearson Fellowship was established by IDRC to commemorate the contribution to international co-operation of its first chairman, Lester Pearson.

The IDRC is a public corporation established in 1970 by an Act of Parliament to support research applying and adapting scien-

tific and technical knowledge to the economic and social advancement of developing countries.

## Les Copley Named Dean of Science

Professor of Physics, Les Copley, was appointed Dean of Science for a six-year term, effective July 1, 1986.

A graduate of Carleton in mathematics and physics, he received a Master of Science degree from McMaster University and a doctorate from the University of Toronto.

He came to Carleton in 1970 as Assistant Professor of Physics, was appointed Associate Professor in 1974, and Professor in 1985.

While at Carleton, he has served on numerous academic and administrative committees, including the Department of Physics Curriculum Committee; the Council of the Institute of Particle Physics; Senate, Senate Executive and Senate Academic Planning Committee; Board of Management, and Faculty Board, School of Computer Science; and Board of Management, Research Centre for High Technology Management.

He was Chairman of the Department of Physics for the past three years, and is a past president of the Carleton University Academic Staff Association.

His current research interest is in the area of the quark structure of matter, and he has published extensively in this field.

He says he looks forward enthusiastically to his term as Dean, "working with the students and staff of the Faculty of Science."

"The Faculty has flourished under James Neelin and, before him, George Skippen. My goal is to ensure that this continues. Considering the high quality of our student and staff, this is a goal that should be easily attained."

## Convocation

The Class of '86 became the largest graduating class in Carleton's history when Convocation ceremonies were held June 12-14, 1986.

More than 1,850 students were in the graduating class.

Five honorary degrees were also awarded during the ceremonies to: W. David Hopper, Vice-President, South Asia Region, World Bank; Gordon McNabb, former President of the Natural Sciences and Engineering Research Council; Wilfred Cantwell Smith, an internationally known specialist in world religion; Hugette Labelle, Chairman of the Public Service Commission; and Wallace Lambert, a specialist in second language education and Professor of Psychology at McGill University.

## Monique Bégin Comes to Campus

Former federal cabinet minister, Monique Bégin, has been named the first incumbent of the Joint Chair in Women's Studies at Carleton and the University of Ottawa, effective September 1, 1986.

"Monique Bégin inspired the first widespread research on women in Canada, helping to make it a formal area of study," says Jill Vickers, co-ordinator of the women's studies program at Carleton.

As executive secretary of the Royal Commission on the Status of Women from 1967-1970, Monique Bégin supervised the Commission's research and public hearings, and the drafting and presentation of its report.

She was elected to Parliament in the Montreal riding of St-Michel, and between 1972 and 1984, held several posts, including Minister of National Revenue, and Minister of National Health and Welfare.



Born in Rome and raised in France, Portugal and Canada, she studied at the Université de Montréal, the Sorbonne in Paris, the Ecole pratique des hautes études and the McGill School of Engineering.

A professor of engineering before entering politics, she resumed that career at Notre Dame University, Indiana, and at McGill in Montreal, after her political retirement two years ago.

Now completing a book on medicare in Canada, Bégin is to conduct courses in 1986-87 in the area of women and health. Her appointment is for four years.

The Chair in Women's Studies is one of five chairs funded by the Secretary of State for Canada at universities across the country.

## In Memoriam

Wlfrid Eggleston, the first director of Carleton's School of Journalism, died June 13 in Ottawa.

Dr. Eggleston was a member of the original teaching staff when Carleton was founded in 1942. He helped organize the School of Journalism in 1945, and became its first director in 1947, a position he held until his retirement in 1966.

He was named Professor Emeritus by the University and awarded honorary degrees by Carleton and the University of Western Ontario.

Born in England, Dr. Eggleston grew up on the prairie homestead of his parents in Alberta.

He was educated in Alberta and Saskatchewan, and earned an honours degree in English and history from Queen's University in 1926.

He worked as a writer for the *Toronto Star* from 1926-33, and was President of the Parliamentary Press Gallery in 1933.

Dr. Eggleston served as Chief Censor for Canada during the war years 1940-45, after which he returned to active journalism.

He taught English at Carleton on a part-time basis and, in 1947, was persuaded by then President, Maxwell MacOdrum, to become the first director of the new School of Journalism.

Dr. Eggleston is the author of two novels, a book of lyric poetry and several biographical, literary and historical works on Canadian subjects.

Among his published books are: *Prairie Moonlight and Other Lyrics*, *The Road to Nationhood*, *The Green Gables Letters*, *Scientists at War*, *While I Still Remember*, and *National Research in Canada*.

He was Past President of the Canada Foundation, Canadian Secretary of the International Press Institute, and Director of the Canadian Writers' Foundation.

He was made a Member of the Order of the British Empire in 1943, and won the National Press Club Award in 1968.

Dr. Eggleston is survived by his wife, Magdelana, daughter Anne Elisabeth, and sister Margaret.

# Be Fit At Carleton

Walk, jog, run, swim, lift weights or whatever, do something active and you'll be the better for it.

"That's pretty common knowledge," says Carleton's Athletics Director, Keith Harris, "but it wasn't always so."

"Here at Carleton, we think we've been leaders both in getting the word out and in providing the action."

Fitness programs for anyone other than athletes or the military were not usual in the early 1970s; there were no model programs and few activity leaders to mount the kind of program Carleton was developing, says Mr. Harris.

"In the early '70s, we broke new ground for a Canadian university when we decided to emphasize community fitness. Our building was designed with that in mind and included a fitness gym and testing lab."

"At the same time, we hired a trained physiologist, Greg Poole, to establish and administer our programs."

"Having staff and facilities to do research on the effects of exercise has given our programs excellent credibility with those in the community - doctors, government departments, and others who have a professional interest in fitness."

Today, "We think we have something for everyone," he says, "from the competitive athlete to the individual who just wants to look and feel better."

He cites a long list of both organized and individual activities offered in the Athletics department, including regular fitness classes on land and in the pool, activities for special-needs groups, informal noon-hour jogging, and squash-fit classes.

To develop trainers, Greg Poole established a leadership program that has already graduated some 1,500 people as qualified instructors.

Mr. Poole is in demand by the media, and by groups wanting information about fitness, and is often invited to serve as a consultant at government-sponsored conferences.

Sport and Fitness Ontario will sponsor conferences for fitness administrators throughout the province, beginning in Ottawa next year, and Mr. Poole is co-chairing the program committee.

As well, he is currently helping to address the all-too-familiar problem of the fitness spas that flounder, leaving patrons with only their wallets slimmer.

Many specialty activities introduced by Carleton have been firsts in the Ottawa area. These include exercise, diet and behaviour modification programs for overweight ladies (the OWLS) and men; post-coronary rehabilitation; back-care clinics; and body-building for men and women. (Greg Poole and co-author Gareth Llewellyn, BA/80, MA/85, who teaches body building, have recently published a revised edition of their book, *The Joy of Flex*, subtitled, "the thinking man's and woman's guide to body building.")

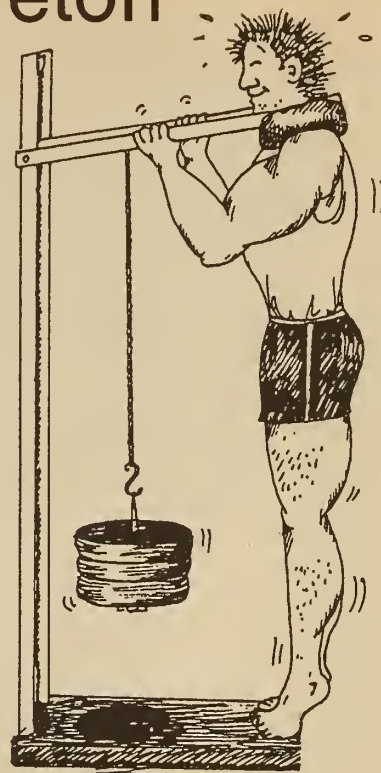


Illustration from *The Joy of Flex*

The heart of the fitness centre is the fitness gym, with track and a wide range of graduated and free weights. It is available to all members for freelance workouts seven days a week. Some members also take an additional membership in the Nautilus Centre.

The fitness evaluation lab has tested more than 8,000 individuals since the service was introduced in 1973. These have included candidates for several local fire departments, members of some national sports teams, and many who come on their own initiative (after a medical examination).

Special group fitness training sessions and stress workshops are also presented for corporate and community groups.

Water fitness activities include swim-nastics, prenatal aquatics, and the increasingly strenuous Master Swim.

Aquatics supervisor Barbara Murray points out the Masters Swim program, very popular with alumni members, has changed over the years to reflect the increasingly high level of swimmers' abilities. When it first started, the prerequisite was the ability to swim 100 metres. Now, the minimum is 1,000 metres.

Less accomplished swimmers are accommodated in the Esso pre-competitive program. Other members prefer lessons or the freelance recreational swims that are available every day for members and their children.

"Increasing numbers of students are taking advantage of our fitness activities, and we encourage them to keep it up when they graduate," says Mr. Harris. "We invite all alumni to join us for the keep-fit program of their choice."



# Journalism Poll Widely Used

Since its inception 10 years ago, the Carleton Journalism Poll has been steadily growing in scope and stature, at times bringing even national exposure to the University.

Now, this prodigy of the School of Journalism is about to take on a new identity as the Carleton Survey Centre.

The change is more than name only. The establishment of the Centre is the latest example of the University's tradition of forging strong links between different disciplines.

It assures participation in the Poll by social science researchers at the University, and is a reflection of the fact that the Poll has come to be highly regarded and used by many organizations not even remotely connected to the media.

"It's become more than a journalism poll," says Associate Dean of Arts, Tony Westell, a journalism professor and co-founder of the Poll.

"Much of the work we're doing is concerned with public policy, and has nothing to do with the media."

More than 30 national, 20 provincial and scores of local surveys have been done by the Poll. Professor Westell says requests for survey work now come from organizations as diverse as the Association of Universities and Colleges of Canada and the Canadian Conference of Catholic Bishops.

"People in the social sciences became more and more interested in our work," he notes. "The Dean of Social Sciences wanted his faculty to play a role... so we decided to take it beyond a journalism school enterprise into an organized research unit with broader university involvement."

Still, the Poll will probably always be best known for its work with national media at election time.

"It's been an important vehicle for publicizing our name," says Stuart Adam, Director of the School of Journalism.

He notes it's been used by every major media publisher and broadcast network in Canada, and has even found its way into the New York and L.A. Times and the BBC.

Although a lot of universities are involved in polling, few have been active in political opinion polling at the national level to the extent that Carleton has.

Being a journalism school didn't make it easier to have the Poll accepted, says Journalism Professor Alan Frizzell, also a co-founder of the Poll.

"The media didn't base their decisions to use our Poll on emotional ties, but rather on the quality of the results they got."

On the other hand, having the Journalism School here does help to explain why Carleton was able to take the lead among Canadian universities in opinion polling.

In the mid-'70s, recalls Professor Westell, "Polls were becoming an increasing part of

the journalist's tools, and were beginning to be used more frequently.

"They were seen as an extension of normal reporting techniques, where you could interview 1,000 people instead of 10, using a standard set of questions and social science methods.

"It's what the Americans were calling 'precision' journalism — a way of finding out what was going on across the country with greater precision than had existed before.

"Our view was that journalism students should learn how to use these techniques and how to interpret the results."

In any given year, upwards of 50 students are hired by the Poll for jobs ranging from telephone interviewing, computer programming, coding and sample selection.

It does two things in terms of training students, says Professor Frizzell.

"The first, specifically for journalism students, is that it sharpens their interviewing skills. It's more difficult to do an interview over the telephone when there's no visual interaction.

"The second is that, with the data we accumulate, we can give concrete examples to the students in statistics and research



Journalism Poll: "A reputation for quality."

In the 1970s, he was involved in polling delegates to Liberal policy conventions, while Professor Frizzell was doing the same thing at the 1976 Conservative leadership campaign.

"We simply decided to get together and do the polls systematically over a period of years," says Professor Frizzell.

They began by polling delegates to the biennial political conventions for the CBC, did an election poll for the CBC in 1979 and 1980, and in the last election, did three national polls for Southam News.

In terms of the Poll's reputation, the 1980 election survey was a watershed, says Professor Frizzell.

"The government was defeated in Parliament, and very shortly thereafter, Prime Minister Trudeau said he was going to stay on as leader. Some people thought the Liberals would get a majority, some thought they would be wiped out for the next 20 years. Nobody knew what was happening, there was no consensus.

"Tony and I made a decision to go with a poll, even though we didn't have anyone to buy it. We showed the Liberals had a huge lead among voters. No one else knew this at the time... We were the first with this information."

methods."

Although the Poll has been used by a broad range of organizations, he adds that its policy has been to refuse market research projects, and instead deal exclusively with public policy issues and news events.

Data from all polls are stored at Carleton and accessible to anyone who wants to see them, he adds.

Michael Way, a mass communications graduate, has been working with the Poll for the past three years. Now as a research assistant, he's responsible for co-ordinating the day-to-day activities of the Poll.

The Poll is noted for its speed in completing surveys. Says Michael, a poll of 2,500 respondents from all over the country has been completed in as few as five days.

"Samples are drawn from telephone books using a random survey method to make sure everyone has a chance to be included," he says.

"The survey questionnaire is usually drafted by Professor Frizzell in consultation with the client, and then put onto a computer.

"We pre-test the questionnaire over two nights to make sure that the language is simple. We don't want people asking us what we mean when we're doing the surveys, yet we



have to retain the values to get the information the client wants.

"Once the pre-test is finished, we usually have 10-15 students working on the telephones doing the interviews.

"The rest involves working with the computer, coding the questions, entering the data, and then sitting down and doing the analysis."

He says most surveys average 30-40 questions, although one for the Ottawa-Carleton Regional Health Unit included more than 80 questions.

He's worked on polls for a variety of organizations, including OC Transpo, TV Ontario, local Boards of Education, and the media.

"I enjoy it," he says. "It's a lot of fun, always different. No two polls are exactly the same."

Students who do the telephone surveys say the most interesting polls are the national ones.

Roxanne Bouchard has called people from the Atlantic provinces to British Columbia and up to the North West Territories.

"It's interesting to find out how people across the country feel about a certain issue," she says.

She's found some differences in the way people respond, depending on where they live.

"The further away they are, the more thrilled they are to hear from you," she says.

In BC, people will often say, "You're calling me all the way from Ottawa?!"

Becky McPhail, one of the Poll's bilingual callers, says she's noticed a differences in the way English and French Canadians respond to being called.

"English Canadians, especially women, are more paranoid," she says. "On one survey, I had to ask to speak to the oldest male in the house. Women were really hyper about that.

"French Canadians are more willing to talk."

They've found most people, though, will willingly participate, especially when they realize that it's not a market survey. A common problem, in fact, is people who talk too long.

A national poll now costs about upwards of \$20,000, says Professor Westell. Most of the cost goes to pay long distance charges, so long conversations can really add up.

Although most of the work with the Poll seems fairly routine, it has its humorous moments.

One student interviewer, John Hall, recalls a poll that asked people what issues concerned them the most.

"One woman told us she was worried the Russians would try to drop a bomb on the United States, but would miss and hit Halifax instead."

And it can be exciting too, he says.

"During the last federal election, we were the first poll in Canada to predict the Conservatives would win a lot of seats in Quebec. . . It was a major breakthrough, something significant."



John Shepherd: A maverick musicologist.

## Shepherd on Music

Everyone knows that people are affected by music. Why they react the way they do, that's more difficult to explain.

Trying to answer that question is the driving force behind John Shepherd's research.

The Carleton graduate (BMus/72), is back as a professor at Carleton specializing in aesthetics and popular music.

"I'm interested in how people relate to popular music," he says.

"Obviously it's a powerful influence on people's lives, but why it's powerful isn't really understood."

He's approaching the problem using surveys, interviewing and observing young people.

"I'd love to get a good, clear picture of how sound affects people," he says, "how people make judgements about sound, which ones connect with them and why.

"It's difficult because people don't relate to music with words, it's hard for them to describe."

His interest in trying to understand music in a social-cultural context is breaking new ground, and has branded him something of a maverick in his field.

"Traditional musicology, with its emphasis on classical music, has not had to deal with social and cultural issues," he says.

"It's impossible to study modern music without looking at social factors too."

It's an interest that's also reflected in his career.

He came to Carleton in 1984 from the Department of Sociology and Cultural Studies at Trent University in Peterborough. Before that, he was a research fellow at the Institute for Advanced Study, Manchester Polytechnic, Great Britain.

Already, he's having an impact on the curriculum at Carleton, this year introducing a new course on rock music. He says it's probably the first time one has been offered at a university in Canada.

"Many of the crucial questions in music are emphasized through the study of popular music," he says.

"What's important is that different types of music aren't viewed as being in watertight compartments, some superior and others inferior.

"There are many common theoretical and methodological questions dealing with sound composition and quality. It's good for students to get a sense of that."

Not only music students come across him. He and his wife, Margaret, are senior residents.

As for being back at Carleton, he says, "It's great.

"I always had a lingering desire to come back. I had a really good experience here as a student. The department was growing at a fast rate, things were very fluid. . .

"It was and is an exciting place to be."



# Breakthrough for Chinese Keyboard

Anyone who's a "hunt-and-peck" typist knows the agony (and hopefully the ecstasy) of working on a computer keyboard.

Imagine, though, the nightmare you'd face if your language had more than 60,000 characters in it. You'd be hunting and pecking for a long time just to get logged on.

In China, adapting computer keyboards to the language is no laughing matter. But neither has it been a simple task.

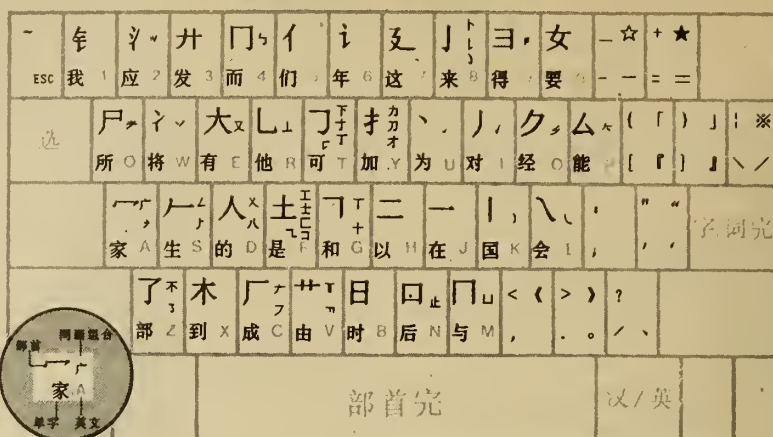
At least till now.

Heng Sheng Cai, a computer specialist from Peking, Republic of China, has been working as a research associate at Carleton for the past two years to solve the problems of using computers with his language. And he's come up with an innovative approach that goes a long way to overcoming the problems.

Using videotex technology and artificial intelligence, he's developed a keyboard and program that allows the user to build characters quickly and easily.

An average user could input about 38-40 characters per minute, while an expert typist could input up to 60, he says. That's an amazing feat considering one character could consist of as many as 12 strokes to write.

## 恺兴精简部首键盘



The keyboard incorporates the 36 most frequently used characters in the Chinese language, plus another 36 radicals (combinations of strokes) which can be used to build new characters. The system readily builds all of the 6,700 Chinese characters that comprise the international standard for computers, and are the most commonly used characters in the Chinese language.

It's a tremendous advance over systems currently in use in China, he says, and he

plans to develop Chinese videotex when he returns. Already he's published a paper in Chinese using the system, and will be presenting his findings at a conference in Peking next summer.

Working at Carleton has helped him to develop the system more readily than he would have been able to in China, he says.

"Professors here have been very helpful, I've been able to use computer hardware and software that we don't have in China.

"I work more efficiently here."

He said he applied to come to Carleton to work with Professor Spruce Riordon after reading some papers he had written. The Chinese government has paid all the expenses associated with his work here.

Professor Riordon, Dean of Engineering, says Mr. Cai has been very enterprising, and generated a lot of good ideas since arriving here in November 1984.

His stay was due to end this fall, but they've asked for a six-month extension for the project.

"The key thing in all of this has been Telidon technology," says Dean Riordon.

"Canada has done a lot of the pioneering work in this area, and Mr. Cai has been able to get help from one of our graduates, Doug O'Brien, as well as the Department of Communications."

Dean Riordon says the exchange has been as beneficial for Carleton as it has been for Mr. Cai.

"We've seen some interesting developments, and will have a couple of joint papers out of this," he says.

But as important, he adds, "We see this as a way of extending Carleton's reputation in the world.

"We see the connection with Mr. Cai as being an ongoing one, that can only be achieved through such long-term associations.

"We are in effect supplying them with knowledge, giving their people an environment in which to acquire knowledge.

"I think it will make a positive impact in their thinking about Carleton."



Dean of Engineering Spruce Riordon, and research associate, Heng Sheng Cai, review Chinese characters produced by new keyboard.



# Aerospace Electronics

Three professors in Carleton's Department of Electronics share a common interest and philosophy that have made Carleton a leader in aerospace electronics research in Canada.

Jim Wight, Bob Harrison and Barry Syrett have made a fine art out of establishing close links between the University, the Government, and industry.

Each of them serves as a consultant for a private company — Wight with Canadian Astronautics, Harrison with Telemus, and Syrett with BNR. But as well, they also assure that their graduate students are placed in government or private labs.

Says Professor Wight, "We tap intelligent people in these research centres in order to provide technical guidance and input to our students.

"The students are able to work in an academic environment and in the real world at the same time."

But they do more than just work in both worlds. They use the opportunity to make sure that everyone benefits from the arrangement.

"I use radar as a vehicle for generating thesis topics for my students," says Professor Wight (who supervises four PhD and seven Masters students).

"The goal of the company I work with is to make niche market radars that are more economical and have higher performance than their U.S. counterparts.

"The customer base for their product includes the Canadian Centre for Remote Sensing and the Atmospheric Environment Services."

Students are researching a wide array of topics related to radar, including acousto optic receivers; multi-band, dual polarization antennas; and monolithic microwave integrated circuits.

Professor Wight's own specialty is with imaging radar. They can operate in night and all kinds of weather, and have the unique capacity to identify objects even when they are distant from each other and would normally not be seen.

Professors Harrison and Syrett specialize in microwave circuitry, while Professor Wight specializes in work related to antennas, receivers and transmitters.

For the past five years running, they have received annual equipment grants of \$80,000 from the Natural Science and Engineering Research Council, an incredible feat considering only one in three applications is funded.

As Professor Wight says, "We're probably the best in Canada at what we do."

The proof of this claim is in the marketplace too.

Although the electronics industry is in the doldrums, says Professor Wight, "A master's student who graduated from the department several months ago had seven job interviews, and got seven job offers."



Master's student, Dia Helmy, tries out new Sperry workstation, while Professor Archie Bowen looks on.

## Bowen Gets Sperry Award

Engineering researchers at Carleton are taking a big step forward into the world of expert system research, as the result of a \$200,000 grant from Sperry Inc., this summer.

The grant gives Carleton engineers access to state-of-the-art technology in the field of artificial intelligence, says an elated Archie Bowen, the engineering professor who masterminded Carleton's proposal.

It raises to more than \$2 million the total amount of grants awarded to the Faculty for major new computing equipment over the past year, as the reputation for research at Carleton continues to soar. But, adds Professor Bowen, it didn't hurt to have a bit of luck on Carleton's side too.

"I was in Montreal this winter when I heard about the grant program in a casual conversation with a friend," he recalls.

"He introduced me to the Sperry sales representative, who thought the grants had already been allocated, but suggested I submit a proposal anyway.

"The chance of getting a powerful system like this was something to jump at, so I did an all-night stand, and got the proposal in right away."

That extra effort paid off when Carleton became one of 44 universities in 16 countries (three in Canada) to receive the award, which consists of Sperry's Explorer workstation, software, training and support.

Previously, expert systems research at Carleton has been undertaken with a small software program on a personal computer, says Professor Bowen.

The difference is a bit like comparing a Chevy pickup to a Ferrari, says Sperry's announcement of the award.

While most computers combine information-processing and decision-making functions into one program, expert systems separate the two, explains Professor Bowen.

Data is input into an information base and then the computer searches a knowledge base to arrive at appropriate decisions.

Separating decision-making from information-processing allows the program to be changed easily to reflect the addition or modification of decision-making rules. This means the system can grow in experience, much as a human expert, says Professor Bowen.

"We're able to attack problems we don't know how to solve ahead of time."

He gives as an analogy the diagnosis and treatment of medical disorders. By using a defined procedure, a doctor is able to diagnose an ailment and prescribe an appropriate treatment. A medical diagnostic program becomes increasingly more accurate as more rules are added, notes Professor Bowen.

While it is easier to change both the information and knowledge bases on expert systems, however, they are much slower than their conventional counterparts and so require more powerful equipment.

Enter Sperry. Their system is specially designed to execute very efficiently the kind of code that is used to do expert systems, says Professor Bowen.

Added to that, he says, is the fact that Sperry's hardware and software are designed to go together, making for a very sophisticated screen display with special high resolution.

Carleton engineers are already at the forefront in applying artificial intelligence to real-life applications, says Professor Bowen.

The Sperry equipment will go a long way to furthering these research initiatives in engineering design, office automation and communications.

As well, says Professor Bowen, a major challenge lies in developing a graduate program in artificial intelligence, and introducing courses on the subject at the undergraduate level.



# Particles Attract Physicists



Vertex detector under construction in Carleton's Science Technology Centre: Precision never before achieved.

With a circumference of 27 kilometres, the LEP accelerator in CERN, Switzerland, is possibly one of the biggest machines ever made.

Paradoxically, its purpose is to help scientists from around the world examine some of the smallest particles ever known to exist.

When it's in operation in 1988, the accelerator will be sending electrons and positrons in opposite directions, causing them to collide at four different points where physicists will be conducting experiments to examine the properties of the fundamental particles they base their theories on.

It's "the" place to be for high energy physics, so understandably, physicists and researchers at Carleton are ecstatic about participating in the experiments there.

Says Carleton physics professor Robert Carnegie, "LEP will dominate high energy physics for the better part of a decade after it is turned on.

"We feel that being involved in this group is the highest possible recognition we could achieve. It's a measure of the respect we're held in by the international community."

The University, and its Science Technology Centre, have achieved an international reputation for building sophisticated equipment used for high energy physics experiments at the Fermi Lab in Chicago, the DESY accelerator in Hamburg, West Germany, at CERN and other centres.

That reputation was put on the line again this summer when prototype equipment, a vertex detector designed and built here, was successfully tested at the accelerator in July and August.

John Armitage, head of the Instrumenta-

tion Group at Carleton that designed the detector, explains it will literally be at the centre of one of the experimental sites at the accelerator.

Its purpose is to measure the tracks particles make as they emanate from the collision as close to the point of annihilation as possible.

In tests this summer, the prototype detector was able to measure distances of 20 microns (.02 millimetres), two-and-a-half times more precise than the distance of 50 microns that had been attained previously.

It wasn't easy to achieve.

Just two metres long and 50 centimetres in diameter, the detector encompasses an incredible 3,000 wires, each containing voltages of up to 10 kilovolts (10 kilovolt lines used by power companies have 50 cm insulators before they even go into the body of a transformer).

Combined with these high voltage wires are 500 sensitive amplifiers designed to work at the millivolt level.

"There were a lot of problems we had to sort out because we were dealing with this combination, while at the same time, demanding the most accurate and reliable assembly possible," says Professor Armitage.

Adds Professor Carnegie, "No group would have been given the green light to build a detector if they hadn't built one previously. We are involved in this project because of the strength we have in this area."

That strength is the result of the combined talents and skills of more than 20 dedicated people, in the Department of Physics itself, the High Energy Physics Laboratory of the National Research Council (which moved to

campus in 1980), the Institute of Particle Physics which supports four researchers here, the Instrumentation Group which designs the equipment, and the Science Technology Centre which builds it.

The Carleton-NRC connection is a unique and potent combination that has been nurtured over the past two decades.

Dr. Clifford Hargrove, who heads the NRC Lab here, attributes this close connection to Ted Hincks, who came from NRC to chair the Physics Department in the 1960s.

"Ted believed that any high energy physics group needed a university component in order to be able to attract a range of people," he says.

"Not only does a university appointment carry a certain amount of prestige, some scientists don't want to work at national labs, but prefer to work at university and with students.

"At the same time, NRC is a very broad and general type of organization, where it's difficult to specialize in one branch of physics.

"As part of the effort to build up a specialization here, we worked hard on the development of the Instrumentation Group and the Science Technology Centre. It would have been impossible to do within NRC."

On the other hand, he says, "As general backup to our efforts, we have all the facilities and knowledge of NRC."

The result is a large organization with a diverse range of knowledge and capability, "much stronger than either would be on its own."

While the group has been building its reputation and skills in general areas of high energy physics, at CERN it will be working at the leading edge of research in the field, says Professor Carnegie.

Over the past decade, there have been tremendous advances in physics. The theory that the smallest particles are electrons, protons and neutrons, which students were taught through the 1960s, has been swept aside.

In their place has emerged an array of smaller particles—quarks, gluons, mesons, muons, and so on—that won't have entered the vocabulary of most people over 30.

Protons and neutrons are made of particles called quarks. The proton of a hydrogen atom has three such quarks.

These are bound together by a force known as the "strong interaction." When scientists try to extract a quark, the force between them increases till, ultimately, a new pair of quarks is created to retain the three-quark composition of the proton.

The extracted particle is called a meson, and consists of a quark/anti-quark pair.

One other element of the "new" physics is that quarks are associated with different colours, and carry a new quantity, analogous to electrical charge, called the colour charge.



The strong interaction which binds them is associated with a new exchange particle, called the gluon.

Professor Carnegie adds that physicists have also identified four fundamental interactions which hold particles together. In order of decreasing strength, these are the strong interaction, electromagnetism, the weak interaction (associated with radioactive decay) and gravity.

A significant step was recently taken in the development of a unified theory to encompass these four different interactions, with a theory that incorporates electromagnetism and the weak interaction.

This theory predicted the existence of two new particles, the W and Z bosons, which are the exchange particles associated with the weak interaction.

These particles have been observed on a smaller accelerator at CERN, but attempts to extend the theory have been limited because of the difficulty of generating the particles.

Enter LEP. The higher energy of the LEP accelerator is just sufficient to allow the copious production of the Z and W bosons, which decay into all of the other kinds of new particles.

Says Professor Carnegie, "We'll be in a unique position to study the full set of basic particles and interactions with substantially improved precision."

Being built at a cost of some \$1 billion Swiss, the LEP accelerator is supported by 14 countries.

Four experiments have been approved for the accelerator, each involving some 200 physicists.

The Carleton-NRC scientists will be collaborating with physicists from 22 research institutes in nine countries.

Termed OPAL (Omni Purpose Apparatus for LEP), the cost of this experiment is estimated at \$45 million. Funding for the Carleton-NRC share, \$4 million over five years, is provided jointly by the Natural Science and Engineering Research Council and the National Research Council.

Working on the project, with the high level of international collaboration it entails, has direct benefits for Carleton, says Professor Carnegie.

"There's considerable enrichment in an academic and technical sense that comes from learning about techniques, methods and procedures followed by universities around the world," he says.

"The exchange of information is very open."

High energy physics is one of the most expensive research fields in science today, he concedes. But, he says, studies have shown that every dollar spent at CERN generates \$7 in new economic activity.

Work in high energy physics advances our understanding of nature, and also boosts technological development, he says.

"I think one can say it's the opinion of the scientific community of Europe that this is worth investing their money in, this is where the science is."

# Summer Science Projects

A group of high school students at Carleton this summer had quite the stories to tell when they were asked how they spent their summer vacations.

The eight students, all of whom had just completed Grade 12 in July, were here on a summer scholarship program sponsored by the Faculty of Science.

Each scholarship winner was awarded \$1,000, and worked with a faculty member on a research project over a seven-week period.

Offered for the first time, the scholarship program was administered by Ron Shigeishi as the Associate Dean of Science.

The purpose of the scholarships, he says, was to promote the study of science by invit-

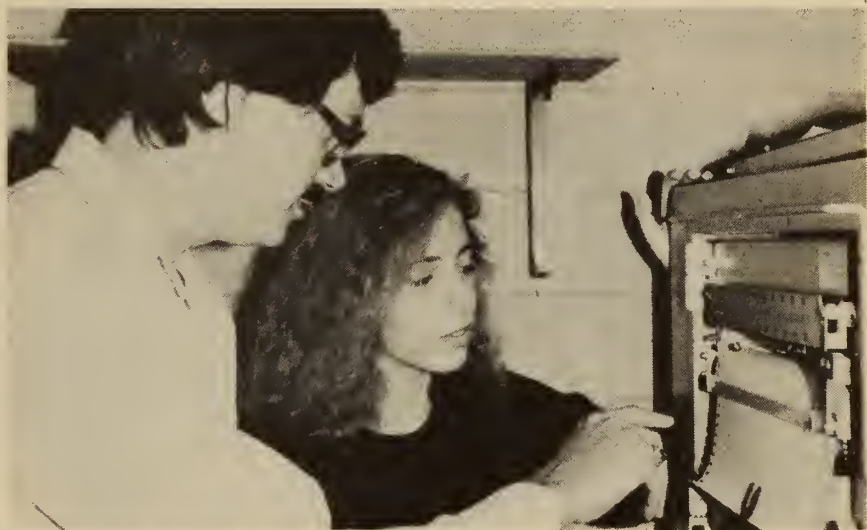
She enjoyed the emphasis of the program on the practical research and work in the lab.

"I lacked a lot of lab experience in high school," she says. "Here we concentrated more on lab work and less on theory. I had to pick up a lot on techniques. . . Sometimes it was repetitive, but when you find the right way to do things and see results, it's gratifying."

Alex Grossman, a Hillcrest student, agrees.

He worked with Biology professor Natalie Chaly on a project examining the structure and function of the nucleus in mamalian cells.

"It was very interesting and I learned quite a bit," he says. "It was a chance to be exposed to the more practical, less theoretical side of science, to actually use your hands."



Katie Cook, with Professor Bob Crutchley: "Hands on experience."

ing students to participate in research programs at the University and to let them see what research is like in an academic institution.

Science departments were asked to submit projects they would like to have students work on, and were so impressed by the calibre of the students applying that eight scholarships were awarded, rather than six as had originally been planned.

Some fears that the students would need so much supervision that they would be more of a hindrance than a help were quickly dispelled.

"The students were very mature, extremely bright," says Professor Shigeishi. "Of the 40 students who applied, I don't think there's any doubt the top science-interested students from the region were at Carleton this summer."

While the professors got a bit more help in the labs, there's no doubt that the scholarship winners got everything they bargained for too.

Katie Cook, a student from Earl of March Secondary School, worked with chemistry professor Bob Crutchley on a project measuring spectra of legangs, compounds that bind to metals.

"I was able to do things at a fairly advanced level - to perform a procedure and see if it worked or didn't work."

Meanwhile, in the physics department, Nepean High School student Ben MacKenzie worked with Professor Peter Watson on re-writing a software graphics package so it could run on a Macintosh computer.

The program is used by physicists worldwide, and introduced him to FORTRAN for the first time.

"It was interesting and intensive," he says, "and will be useful when I do go on to university."

Other scholarship winners were Anne Sherman (Immaculata), Robert Knobel (Glebe), Derek Pritchett (Lisgar), Ajay Ghandi (Cairene Wilson), and Mark Kito-wicz (Sir John A. MacDonald).

In addition to working on their projects, the students had a weekly seminar to be exposed to fields other than the ones they were working on. And to end it all, each gave a half-hour presentation on their own project.

Professor Shigeishi views the program as an all-round success. "The students got the experience, and we got our money's worth from the point of view of actual work done," he says.





Some 300 people were on hand for the Alumni Association's Annual Dinner in the Westin Hotel, September 26.

## ALUMNI WEEKEND

Alumni Weekend '86, held for the first time ever in September rather than during the traditional Panda Game in October, was a huge success as hundreds of alumni turned up for the various activities.

Some 300 people were on hand for the annual reception and dinner in the Westin Hotel on Friday, September 26, when Maureen O'Neil, BA/64, was presented with the A.D. Dunton Alumni Award for outstanding achievement.

Saturday morning, the Old Crow Society sponsored its annual Alumni Rally, before the Ravens' beat the Queen's Golden Gaels 38-14, for their third consecutive victory of the season.

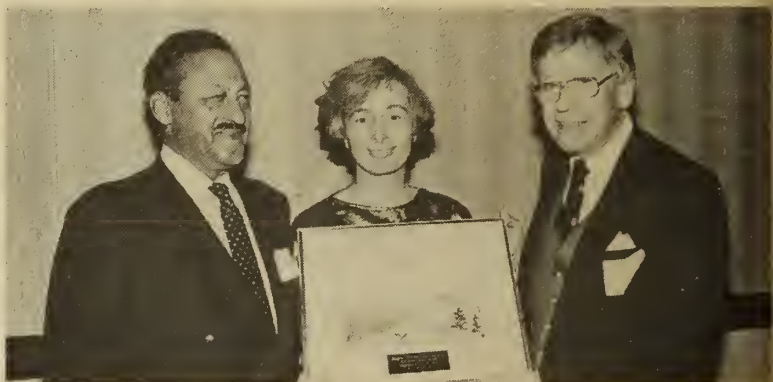
The scene shifted to the residence of the Belgian ambassador, His Excellency Roger Denorme, for the annual reception of the Carleton Club, co-hosted by Carleton's Chancellor, The Honourable Gordon Robertson.

On Sunday, Linda MacLennan, BJ/81, co-host of CTV's Canada AM, was the featured speaker at the Annual Brunch. Outside, baseball challenges featured journalism alumni and faculty, and CHEZ-FM staffers against CKCU-FM.

Magic Jack Graham, and alumni Pat Stewart and Devon Woods with their Juggleband, entertained alumni and their children as part of the Sunday-Funday program, that also featured horse-drawn wagon ride tours of the campus and a pool party.

A beer and pizza party for engineering alumni... and a reception for music grads were other highlights of the weekend.

Special thanks went to the Runaround, whose balloons helped boost spirits at the reception and Sunday-Funday.



Professor Bruce McFarlane (left), with alumni award winner, Maureen O'Neil and Carleton President William Beckel.



Nils Jensen (left) and James Watson were among those celebrating Carleton ties."



Ottawa alderman and alumna, Nancy Smith, with past-president Murray Hunter.



Architecture alumni were well represented at the dinner.





Alumni renew acquaintances at the Old Crow Society's re-game rally.



Audrey Hester, president of the Ottawa branch of Queen's alumni, had the delicate job of holding the ball while newly-elected Carleton alumni president, James Watson, did the official pre-game kick-off.



Student volunteers in clown suits were on hand to greet arrivals to Sunday-Funday.



Alumni Pat Stewart and Devon Woods entertained the "Class of 2010" with their juggleband.



Wife of Belgian Ambassador, Suzy Denorme, delighted guests at the Carleton Club reception with her impromptu piano performance.



Intrepid journalism faculty and alumni came out for a baseball challenge as part of Sunday-Funday.



Linda MacLennan, BJ/81, popular co-host of CTV's Canada AM was the guest speaker at Sunday's Farewell Brunch, attended by 100 people.



# Lab Studies Secrets of Sleep

Sleep. It's one of the things that we've been doing since the dawn of time. Yet, surprisingly, it's one thing that scientists still find hard to explain.

"The scientific age of sleep research began in about 1953, when two people identified REM (rapid-eye-movement) sleep," says Carleton psychologist, Robert Hoffmann.

"Their work generated a lot of interest in sleep, as well as sleep abnormalities, but still, over these 33 years, nobody has come up with a good explanation of why we sleep and why we dream.

"We know what we feel. We get tired. But why?"

Since 1976, he's been seeking an answer to this question along with fellow psychologist Alan Moffit.

The answer still eludes them, but through their work in Carleton's Sleep Lab, they've taken some important steps down the road to a better understanding of why we sleep and dream.

A significant part of their work has involved a technique they pioneered, using a computer to measure brain activity rather than the usual electro encephalograph (EEG) machine.

"We're quite proud of our work on brain activity," says Professor Hoffmann. "We've come up with some information no one else has been able to find."

He explains that "things get very complex when you try to measure brain activity. There are a lot of small changes that you don't detect with the eye.

"When you use a computer to quantify



A fascination in sleep and dreams is widespread, but they still remain a mystery.

what's happening though, you can see the subtle changes in brain activity."

Their work with the computer has helped them to answer basic questions: If people don't recall a dream, how do you know they've had one? How do you know they're not lying to you when they describe their dreams?

"Like everyone else, we didn't have the answers to these questions," says Professor Moffit. "We assumed people were acting on good faith.

"The EEG study provided us with a scientific way of proving whether a person was telling the truth or not about having a dream."

Professor Moffit explains "The problem we faced was, if someone doesn't recall a dream, how do we know whether they've had one.

"The assertion that people always dream in REM sleep has been demonstrated to be incorrect. We had to determine, on the basis of EEG activity whether they were in fact dreaming."

The use of the computer enabled them to prove that often people didn't recall a dream simply because they didn't have one.

Their study also turned up distinct differences in brain activity when a person is telling the truth or telling a lie. (This aspect of their work has caught the attention of police officials on the lookout for a better lie detector.)

And they've been able to identify differences between people who readily recall dreams and those who don't.

"People who remember dreams tend to

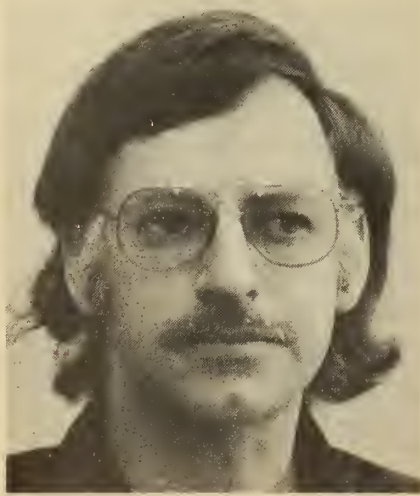
come through an intermediate state when they waken," says Professor Hoffmann. "People who don't remember dreams tend to become wide awake very quickly."

Professor Moffit adds these differences are also reflected in the way they describe their dream and waking experiences.

"High dream recallers tend to report nighttime and daytime experiences in a similar way, whereas low dream recallers describe them in quite different ways," he says.

Currently, the psychologists are focusing their attention on a study of "lucid" dreaming, a state where someone wakes up while dreaming and continues to dream.

From a growth and development point of



Robert Hoffmann



Alan Moffit



view, lucid dreams can make us more aware of what's going on inside ourselves, says Professor Hoffmann.

As well, he adds, "Lucid dreaming is important from a clinical point of view because if you can get better control of your dreams, altering dream content might become a useful clinical procedure."

This is particularly important in cases where people have difficulty coping with their dreams, a problem that psychologists have noted is common among people who have been subjected to violence: war veterans, refugees, victims of crime and sexual abuse, people who've had severe accidents, and so on.

"A lot of people think of dreams as something that happens to them," says Professor Moffit.

"They're not viewed as an area in which you can change your concept of yourself.

"Modern therapy suggests you can change your dreams. Instead of falling down, you can fall up."

This summer, sleep and dream research around the world was the focus of an international conference at Carleton, when several hundred delegates of the Association for the Study of Dreams held their third annual conference here.

Professor Hoffman says the association is a cross-section of people interested in dreams — psychologists, psychiatrists, anthropologists, writers and literary critics, people with a religious orientation, and others just interested in the dream experience.

The conference was important for Carleton says Professor Moffit, because it provided valuable exposure for the work here, and an opportunity for graduate students to present their research.

As well, he adds, it resulted in national media coverage, and will even be part of a *National Geographic* issue focusing on sleep in the coming year.

After a hectic summer, they were looking forward to resuming their quest for the answer to the basic question, why we sleep and dream.

Professor Hoffmann has his own theory that boredom plays a role in the process.

"Boredom has a profound effect on the nervous system," he says. "We know we can selectively bore parts of the body by exposing it to a certain stimulus for an extended time.

"Possibly we get bored with being ourselves. When I go to sleep, I cease to be me. Everything fades away."

It seems to be a question that interests many Canadians, he says.

"Canada probably has more sleep labs than any other country in the world," says Professor Hoffmann.

Here at Carleton, about 100 people are tested annually in the sleep lab. Each night's test results in about four days' work.

People readily come forward when you put up notices, says Professor Hoffmann.

Many of the volunteers are Psych 100 students.

And, he adds, there are those who come to the lab just to get "a good night's sleep."

# High Tech Connections

Carleton's Research Centre for High Technology Management is forging new connections with the high tech community that benefit both the University and industry.

Just two years old, the Centre has already sponsored an international conference, published a software developers directory of the Ottawa-Carleton area, sponsored lunches and seminars on a variety of subjects of concern to high tech companies, and worked directly in the companies to help them solve management problems.

"What we're trying to do is to generate research and make that research available to decision makers in high tech management," says John Callahan, director of the Centre and himself a Carleton alumnus (BScHons/64).

"The second aspect is really important. We're interested in applied research that will change the way that people make decisions."

He's especially proud of a market research study, being undertaken by a Master's student in the School of Business, Miguel Arrufat, at the Ottawa-based firm, Cognos.

"It's the kind of situation we're really interested in," he says.

"Here we have a student, supervised by professors in the School of Business, doing a project for a master's thesis that's of direct use to a high tech business.

"Cognos recognizes this by giving him a desk, facilitating contacts in the company and access to customers, and lending financial support.

"But the study will also be of general value — the findings will be published, and will benefit the entire community.

"It's an ideal example of the bridge that can be established between students and professors on the one hand and the high tech community on the other."

There is a real need for this kind of effort, says Milton Silva, Director of Corporate Quality for Gandalf Technologies, Inc.

"The problems facing high tech companies are generic," he says.

"They're related to the management of complex issues, business environment, marketing and so forth.

"Being in the Canadian business environment, apart from the U.S. high tech industry, it's important to have somebody in Canada collect information independently and to distill it from a business school point of view. We need to have the information made available to the industry, and to have information that we can make use of."

During the summer, a professor and student from the School of Business completed the first phase of a study on the product development process at Gandalf, under the auspices of the Research Centre.

"We got some information we didn't expect," says Mr. Silva.

"In that context, it was helpful, a bit of an

eye opener.

"In other areas, it reaffirmed certain things we already knew, but we agree there's a need to continue the study, and are starting to collect information for the second phase."

Professor Callahan says that high tech companies have unique needs from a management point of view.

"They're high growth, people focused," he says. "The major assets go down the elevator at night. They have to be managed differently."

The Centre was established in 1984 to focus on three areas:

1) management of high technology firms; 2) management of technical innovation; 3) management of the social impact of high technology.

One of his first priorities when he became Director of the Centre was to raise Carleton's profile with the business community, says Professor Callahan.

A business plan luncheon series for established companies is one approach taken by the Centre to achieve this goal.

"What we're doing is providing a forum where companies can present a business plan and have a panel of people who are experts give them feedback right away."

As well, special seminars organized by the Centre have dealt with topics such as export financing. In February, an international conference on Managing High Technology: Decisions for Success was held at the Ottawa Congress Centre. (A book of the same title based on the conference is available directly from the Research Centre for \$49.95.)

The Research Centre has also compiled a directory and data base of 125 software developers in the Ottawa area, far surpassing the only directory previously available, which listed 25 companies. Now it's working on a similar one for the manufacturing side.

"We're offering something nobody else does," says Professor Callahan.

"What will really make the Centre a success is tangible, useful research.

"We have a strong Faculty of Social Sciences, but one of the things we have to do is get out there and promote our work."

He cites Psychology Professor Dick Dillon's work on human factors in computer design as an example of the kind of applied research he would like to see extended through other areas of the University.

Research being undertaken by the School of Business in the marketing of high technology projects and services, and in pension fund management were also mentioned as examples.

"Carleton is doing a good job in public administration and international affairs," he says.

"People come to us for our expertise in these areas. The same thing is happening with the School of Business."



John Callahan



# Inside Views of Parliament

If you ever wondered what really goes on behind the doors of the House of Commons, there are almost 100 Carleton alumni and former students who could tell you.

They're Members of Parliament (Patrick Boyer, Cyril Keefer, Geoff Scott, and geology professor Bill Tupper), assistants to MPs of all parties, clerks of the House, Parliamentary reporters, even a Senator (Joyce Fairbairn).

Most operate in a world where job security is virtually non-existent. But although their jobs are on the line almost daily, they say that working "on the hill" is worth it.

The Parliament Buildings themselves, with their ornate architecture, carved ceilings, famous paintings and statues, exude a feeling of awe and sense of history.

But, moreso, the dynamics of life on the centre stage of Canadian politics make their jobs exciting, stimulating and always challenging.

Here's what some graduates say about life in what's possibly the ultimate workplace in Canada.

As Principal Clerk of the Journals, **Michael Kirby**, DPA/66, MA/73, plays a unique role in the day-to-day affairs of the House of Commons.

The Journals are the official records of the House of Commons, says Michael. "We produce the record of things done, whereas Hansard is the record of things said."

"We're a non-political service, there to serve. We don't belong to political parties and try to keep a low profile."

It's possibly one of the most demanding non-political jobs in the House.

When the House is sitting, documents have to be prepared after the House has risen for the day, now at 6 p.m. ("That's a big improvement over the days when the House sat till 10.")

The proceedings usually take about one and a half hours to prepare, and the documents are published overnight.

"The order paper has the priority of printing at the government printers," Michael says.

As well, his office is responsible for the preparation of forms for the use of the Speaker, and for noting the details of the items of business before the House.

"Often we have to do a quick procedural reference as to how things could or should be handled," he says.

**Andrea Schade**, BJ/83, is the constituency assistant to Pat Carney, Minister for International Trade and one of the highest-profile ministers in the Mulroney Government.

Most of her day, Andrea says, is filled with answering correspondence. Because of Carney's high profile, countless letters come in from constituents and people across the country.

"The letters never stop, whether the House is in session or not," says Andrea.

As for working for a Minister who has one of the toughest reputations around, Andrea



**Michael Kirby**



**Andrea Schade**



**Gayle Morris**



**Audrey O'Brien**



**Kaz Flinn**



**James Watson**



**Kim Fairbairn**



**David Stewart-Patterson**

says, "She's tough, she has to be."

"But there are also moments when she remembers the little things, like giving words of encouragement and support. She does take the time to say thanks for a job well done. It's incredible when you think of the millions of things that must be on her mind. I think she's a brilliant woman, she really amazes me."

As the Ottawa Bureau Chief for Montreal's CFCF-TV, **Gayle Morris**, BJ/67, is on Parliament Hill to cover Ottawa as it relates to Quebec or Montreal.

It's right where she wants to be.

"I like everything about this job," she says outright.

"It's what I've always wanted to do; it's why I studied political science and journalism at Carleton."

It's a non-stop job with its own routine that's evolved over the past six years. It includes everything from "stake-outs" outside meetings of Cabinet, Caucus and the Priorities and Planning Committee to covering Question Period, and interviewing Members and Ministers afterwards.

She does a daily live broadcast to Montreal, from 5:30 to 5:50, and on Fridays, "The Week in Review."

"I love covering election campaigns and constitutional issues," she says. "I thrive on daily pressure — the more that's thrown at you suddenly, the better."

If anything, since she first started as a reporter with the CBC after graduating from Carleton, pressure on television reporters has increased, she says.

"When we used film, we had time to write the script when the film was in the soup," she says. "Now, with videotape, you pretty well have to write in your head. If you have 10 minutes, that's a luxury. Usually, you get 7-8 minutes to prepare your story."

"There's no time for reflecting when you're doing the daily news."

**Audrey O'Brien**, BAHons/72, could tell you a lot about the procedures and practices of the House of Commons.

She's heading a long-term research project (that also involves Carleton alumni Marc Bosc, BCom/82, and Mary Anne Griffith, BA/68) aimed at writing a reference text on House of Commons practice and procedures.

It's something that hasn't been done since the beginning of this century.

The project is known as the Bourinot Project, after Sir John George Bourinot, Clerk of the House of Commons from 1880-1902, and author of a text on parliamentary practice.

Already, says Audrey, the group has published a precis of procedures as a quick reference guide to the daily business of the House.

A data base being developed will include a compendium of decisions of speakers, starting from present-day decisions and working back, current standing orders, and references to three key parliamentary authorities.

**Kaz Flinn**, BA/85, was working with John Turner even before she graduated from Carleton.

She was the National Youth Director for his leadership campaign, worked in the national office on youth during the election, and since then, has been the special assistant, Atlantic Provinces.

Originally from Nova Scotia, she says she came to Carleton to combine studies in mass communication with getting involved with the federal government. And that's exactly what she did.

"Carleton was half my life," she says. "I



spent as much time working for the Liberal Party."

Her job now "basically means liaison with the four Atlantic provinces" and involves answering correspondence and telephone queries, as well as arranging schedules for Turner when he's in Eastern Canada.

"I like this job," she says. "I like the fact that it has a lot of responsibility, and that it deals with a part of the country that's close to me."

"Though I'm in Ottawa, I'm constantly in touch with people from the Atlantic provinces."

**James Watson, BA/83**, enjoys the forum of politics and public service, and says he is "fascinated by the whole process."

As the press secretary to the former Speaker of the House, John Bosley, he was exposed to the very core of Parliament's operation.

His job involved reviewing media reports, scheduling interviews, acting as a spokesman for the Speaker, and arranging the logistics of Bosley's speaking engagements outside the House.

Since Bosley's resignation, Jim has gone on to become press secretary and legislative assistant to Otto Jelinek.

**Kim Fairbairn, BA/82**, is one of four Carleton alumni working in the Prime Minister's Office.

(Also there are Donald Cummer, MA/80; Patricia Duncan, BA/83, and Wayne Lennon, BA/79, MA/82)

She is responsible for handling correspondence related to justice issues. "We receive letters literally by the thousands in this area," she says.

Pornography, abortion, capital punishment, the issue of eliminating discrimination on the basis of sexual orientation in areas of federal jurisdiction, are among the topics that are most frequently raised.

She says she enjoys working in a political atmosphere, and meeting the people "you see on the news."

As the Parliamentary reporter for the Toronto *Globe & Mail*, **David Stewart-Paterson, BJ/81**, has already made a major impact on the course of Canadian politics.

Along with Michael Harris, he was one of the reporters who first raised allegations that Sinclair Stevens had breached the government's conflict-of-interest guidelines.

Yet he doesn't see himself as a crusading reporter.

"A lot of what needs to be covered comes out of events," he says. "We try to look at trends and what's going on, and then find interesting things beneath the surface."

"It's very difficult to say where stories come from. It may be a casual conversation that makes you think about a subject, it may be a hint from somebody, or an observation you make on your own, based on a series of news events."

He says he enjoys working in Ottawa. "Most of the stories I work on have some sort of national significance. I like the energy of Ottawa. . . things are happening here that matter."



Pictured here (according to positions held during the summer) are: 1. **Mary Keighley, BA/83**, Secretary to Chief of Staff for David Crombie; 2. **Patrick Boyer, BAHons/68**, M.P. for Etobicoke-Lakeshore; 3. **René George, BA/84**, Member's Assistant, Rolland de Corneille; 4. **Ellen Monk, BJ/83**, Researcher for Lee Clark; 5. **Dianne Larocque, BA/85**, Assistant in the Office of Flora McDonald; 6. **Gayle Morris, BA/67, BJ/67**, Ottawa Bureau Chief, CFCF-TV, Montreal; 7. **Wayne Lennon, BA/79, MA/82**, Special Assistant, Prime Minister's Office; 8. **Susan Capling, BAHons/85**, Legislative Assistant to Bob Horner; 9. **Don Cummer, MA/80**, Assistant Director of Correspondence, Prime Minister's Office; 10. **Bill Tupper**, Member of Parliament; 11. **Alice Funke**, Office of Cyril Keeper; 12. **David Stewart-Patterson, BJ/81**, Parliamentary Reporter, *Globe & Mail*; 13. **Fred Vallance-Jones, BJ/84**, Reporter, V.J. Media Services; 14. **Ray Aboud, BJ/73**, Parliamentary Reporter, CBC Radio News; 15. **Gary May, BJ/74**, Reporter, *London Free Press*; 16. **Peggy Berkowitz, BJ/80**, reporter, *The Wall Street Journal*; 17. **Peter Leo, BA/83**, reporter, CHEZ-FM; 18. **Susan Saville, BAHons/82**, Special Assistant to Howard McCurdy; 19. **Janice Keane, BA/78**, Legislative Assistant to Bill Rompkey; 20. **Andrea Schade, BJ/83**, Constituency Assistant to Pat Carney; 21. **Caroline Casselman, BJ/84**, Legislative Assistant to John McDougall; 22. **Guy Graveline, BA/78**, Administrative Assistant to Parliamentary Secretary; 23. **Michael Kirby, DPA/66**, MA/73, Principal Clerk of the Journals; 24. **Nora Lever, BA/72, BAHons/73, MA/76**, Chief Clerk, Committees and Private Legislation; 25. **Margaret Holliston, BAHons/82, MA/85**, Member's Assistant, Ian Deans; 26. **Eve Elman, BA/81**, Research Assistant to R. Skelly; 27. **Barry Wilson, BA/69, BJ/75, MA/85**, journalist; 28. **Mary Anne Griffith, BA/68**, Clerk Assistant, House of Commons; 29. **Henry Brown, BAHons/73, MA/76**, Executive Assistant to the Minister of Transport; 30. **Myles Kirvan, BA/77**, Policy Adviser to Minister of National Revenue; 31. **Linda Scales, BA/82**, Assistant to Lawrence O'Neill; 32. **Michael O'Neill, BA/75, BAHons/77**, Research and Legislative Assistant to Simon de Jong; 33. **Ted Wallace, BA/81**, Assistant to Don Mazankowski; 34. **Wendy Jarath, BA/82**, Assistant to David Crombie; 35. **Kim Fairbairn, BA/82**, Special Assistant, Prime Minister's Office; 36. **Audrey O'Brien, BAHons/72**, Bourinot Project Manager, Table Research; 37. **Gordon Lovelace**, Director, Senate Information Services; 38. **Rod Deacon, BA/74**, Reporter, Thomson News Services; 39. **Morley Verdier, BA/81**, Private Secretary, the Senate; 40. **Cynthia White, BA/80**, Assistant to Perrin Beatty; 41. **Janet Binks, BA/85**, Legislative Assistant to Doug Lewis; 42. **Kata Kitaljevich, BA/81, BAHons/82, BAHons/83**, Legislative Assistant; 43. **Sheri Young, BA/83**, Special Assistant to Len Gustafson; 44. **Carrie Watkins, BAHons/84**, Admin. Assistant to John McDougall; 45. **Enrico Bruni, BA/79**, Constituency Assistant to James Kelleher; 46. **Leonard Mandel, BA/81**, Legislative Assistant to Peter Peterson; 47. **Marc Bosc, BCom/82**, Proceeding Clerk, House of Commons Committees; 48. **Janet Sutherland, BA/81**, Member's Assistant - Allan Pietz; 49. **Peter Stapleton, BAHons/82**, Research Assistant, Gary Gurbin; 50. **Ian Hornby, BA/77**, Special Assistant, Communications, James Kelleher; 51. **Dale Burkart, MA/81**, Legislative Assistant for John Parry; 52. **Kevin MacIntosh, BAHons/83**, Assistant to Bob Nicholson; 53. **Gerald Schmitz, PhD/78**, Research Officer, Library of Parliament; 54. **Guy Levac, BJ/84**, Press Assistant, Office of Lynn McDonald; 55. **Susan McKay, BAHons/84**, Clerk; 56. **Dani Loewen**, Member of Parliament's Assistant; 57. **Doug Church, BA/84**, Special Assistant to Perrin Beatty; 58. **Gordon Douglas, MA/79**, Legislative Assistant to Sheila Copps; 59. **Alison Golding**, Special Assistant to Peter Peterson; 60. **Brian Derrah, DPA/76, MA/77**, Senior Assistant for Manitoba, Office of Jake Epp; 61. **Paul Racine, BA/80**, Parliament Assistant to Benno Friesen.

Other alumni on the hill who couldn't be there for our picture include: **Sandra Banks, BA/84**, Press Assistant, Canadian Wheat Board; **Nancy Bickford, BA/77**, Policy Adviser; **Shella Bird, BJ/77**, Radio Canada International Reporter; **Rosemarie Boyle, BJ/75**, Producer - Sunday Morning; **Jane Calder, BA/79**, Bureau Chief; **Ariel Delouya**, Executive Assistant to David Kilgour; **Elizabeth Dickson, BSc/72**, Legislative Assistant to Don Johnston; **Patricia Duncan, BA/83**, Special Assistant Constituency Affairs, Prime Minister's Office; **Joyce Fairbairn, BJ/61**, Senator; **Christine Fisher, BA/74, BAHons/75, MA/77**, Committee Clerk; **Kaz Flinn, BA/85**, Special Assistant - Leader of the Opposition; **Joanne Fraser, BA/78**, Office of Bill Lesick; **Carol Goar, BJ/74**, Ottawa Columnist; **Richard Huizenga, BA/81**, Member's Assistant, Office of B. Blaikie; **Cyril Keeper, MA/74**, Member of Parliament; **Gary Levy, MA/69**, Editor, Canadian Parliamentary Review; **Kathie Lynas, BJ/77**, Parliamentary Reporter; **Allan MacMillan, BA/70, BAHons/71, MA/72**, Indexer Analyst; **Mary McGuire, BJ/79**, Reporter; **Robert Milling, BA/84**, Legislative Assistant to John Parry; **Jason Moscovitz, BJ/73**, CBC National Reporter; **Penelope Muller, BAHons/78**, Member's Assistant; **Roy Norton, BAHons/75, MA/76**, Special Assistant to Joe Clark; **David Oxtoby, BJ/85**, Staff Writer; **Geoff Scott, BJ/59**, Member of Parliament for Hamilton-Wentworth; **Douglas Small, BJ/77**, Ottawa Bureau Chief; **Andrea Thiel, BJ/76**; **James Watson, BA/83**, Press Secretary, Speaker's Office; **Judith White, BA/64**, Chief of Staff to Joe Clark; **Nancy White, BA/85**, Constituency Assistant for Tom Hockin; and **Catherine Wolnarski, BA/84**, Special Assistant - Office of Brian White.



# Carleton Popular with Seniors



Elderhostlers at Carleton: "Thrilled with the program."

More than 80 senior citizens from across Canada and the United States took part in the Elderhostel program at Carleton this summer.

They aren't typical university students, but judging from the reaction of professors who teach them, maybe they should be.

Carleton art historian, Roger Mesley, taught his fifth Elderhostel class this summer.

"I really enjoy the classes," he says. "The elderhostellers are lively and outspoken in their challenges and their praise.

"I learn something from teaching them."

Carleton psychologist, Bruce Pappas, agrees.

After having taught classes in the program for the past two summers, he says, "It's one of the best teaching experiences I've had.

"The participants are alive and thirsty for knowledge. They make the classes a fantastic experience."

Started in the United States in 1975, Elderhostel is an educational program for people aged 60 and over. Now, more than 800 colleges and universities throughout the world offer courses - each usually one week in duration during the summer. Classes normally have up to 40 people, who live on the campus during the week.

David Etheridge, head of the Elderhostel program in Canada, says more than 5,000 people participated in the program in Canada this summer.

Of 80 sites in the country, he adds, Carleton is one of the most popular.

"There were waiting lists for both weeks at Carleton this summer," he says, "and another 180 people who expressed an interest in coming here."

He summarizes the program at Carleton as "well organized... on a beautiful campus... high academic content."

Participants this summer shared that enthusiasm.

Betty Weiss, of New York City, was here for the second year in a row, for her eighth Elderhostel program.

"I love this city," she says. "It's a treat to be here.

"And I like Carleton very much. I find the people very pleasant, and enjoy the courses."

With a bachelor's and two masters degrees to her credit already, she's no stranger to university campuses.

"For the most part, I find the professors are wonderfully communicative and resourceful in what they teach," she says.

Irving and Miriam Hoffman, of Downsview, Ontario, were also here for their second year in a row.

"We were very thrilled with the program," says Mr. Hoffman. "It was a wonderful experience... the classes were stimulating... and we enjoyed meeting people from all walks of life and different parts of Canada and the United States."

Beatrice and Eugene Goldfarb, of Brooklyn New York, are also experienced Elderhostellers. They were at Carleton for the first

time this summer, taking their 15th program.

"We go because we find the courses stimulating," says Mrs. Goldfarb. "We want to keep learning and meeting new people."

As the residence co-ordinator for Carleton's program since it was first started five years ago, Dolores Young has met everyone who's taken an Elderhostel course here.

"Basically, I'm the resource person," she says. "I live with them in Residence. If they have any problems, they tell me and I try to help them out."

She says her worst moment came during their first year, when a woman, overcome by heat, tripped on a step and fainted.

"That was the scariest," she says. "But fortunately, the woman wasn't hurt and she was very nice about the incident."

Overall, she says, participants rate the courses highly, often giving professors nine points out of ten on evaluation forms.

"Last week, we had three repeaters," she said. "When you figure they have hundreds of places to choose from, the fact they they come back means they must like it here.

The program is run on a break-even basis, and though Carleton doesn't make money, the benefits to the University are obvious, says Regina Aulinskas, Assistant Director of the School of Continuing Education.

"It brings the University to the community... introduces new people to the campus... and gives instructors an opportunity to participate in a really enjoyable experience."





Alumni Presidents, past and present: Murray Hunter (right) and James Watson (left).

## Alumni Council, 1986-87

James Watson, BA/83, was elected President of the Alumni Association at the Annual Meeting on Friday, September 26.

Mr. Watson is currently the Press Secretary and Legislative Assistant to the Honourable Otto Jelinek, Minister of State for Fitness and Amateur Sport. He is a past president of the Rideau River Residence Association, and has been active in alumni affairs since graduating from the University.

Also at the annual meeting, Clayton Beattie, BA/51, retired Brigadier-General and currently a consultant on strategic planning, was elected Vice-President. Dianne Larocque, BA/85, an Adult Protective Service Worker, Cornwall General Hospital,

was elected secretary-treasurer.

New members of Council are:

Drew Love, BA/78, MA/84, Student Liaison Officer, Carleton University;

Joanne Fraser, BA/78, assistant to Bill Lesick, MP;

Bob Richardson, BAHons/85, Special Assistant, Ontario Minister of Colleges and Universities;

Gordon Brown, BAHons/83, Manager, Gananoque Motel; and

Tony Macerollo, President, Canadian Federation of Students.

Other members of Council for 1986-87 are: Murray Hunter, BA/72, Past President; Bonnie Carroll, BJ/71; Bob Eccles, BCom/71, BAHons/72; Pat Finn, BA/80; Gordon Jansen, MA/84; Micheline McKay, BA/81, BAHons/83; Peter Pivko, BArch/78; Jeffrey Rochon, BEng/73; and Jill Vickers, BAHons/65.



Appreciation for past service: Alumni President James Watson made a special presentation at the Annual Dinner to retiring members of Council, Gail Larose and Ted MacNabb.

## Report for '85-86

In his report to the Annual Meeting of the Alumni Association on September 26, outgoing President, Murray Hunter, commented that a number of significant gains had been made over the year.

He reported that University and alumni leaders had met on a regular basis to work out a procedure for planning and funding the association's programs.

As a result of these discussions, the Association had agreed to identify its program priorities in a report it would submit to the University in the fall of '86.

Mr. Hunter said that the Alumni Council had agreed to support the following items: Residence Reunion; a career advisory program linking alumni with students; branch development; an alumnae program; speakers' series; Alumni Weekend '87; and an educational lobby.

Among the highlights of the past year, he noted that a luncheon address by Jean Pigott, Chairman of the National Capital Commission, on June 25 had been a major success.

He also noted that alumni in Toronto had organized a highly successful spring reception on May 28, which had featured Michael Allen, a structural engineer who had designed the domed stadium in Toronto, in association with Carleton professors and alumni.

Toronto alumni also organized an evening at Second City on February 22, and a day at a Blue Jays baseball game on June 1.

Mr. Hunter said he had been encouraged by the level of support and interest in the Alumni Association from student groups, and looked forward to a continuing close relationship between the student and alumni associations in the coming year.

### Committee Appointments

It was reported that Murray Hunter, past-president of the Alumni Association, had been elected to the Board of Governors for a term of one year. Mr. Hunter's name had been submitted by the Alumni Association, as part of a slate of nominees.

Clayton Beattie, Vice-President of the Alumni Association, will be the alumni representative on the Senate Honorary Degrees Committee.

### Alumni Fund Reaches New High

More than \$120,000 was donated by alumni to the 1985-86 Alumni Fund, a new record.

The Fund increased by 39.7 percent over 1984-85, with an average gift from alumni of \$61.

Contributions were allocated as follows: \$50,067 unrestricted; \$28,319 for the Library; \$21,878 for student aid; \$20,057 for academic programs; and \$640 for capital aid.



# Politician's Life for Boyer

Elected as the Conservative MP for Etobicoke-Lakeshore in the Conservative landslide victory of 1984, Patrick Boyer, BAHons/68, has already amassed an impressive record for a rookie MP.

He has chaired three committees: the Parliamentary Committee on Equality Rights, the Conservative Caucus Committee on Election Law and Redistribution, and the Parliamentary Committee on the Disabled and Handicapped.

The Committee on Equality Rights reviewed all federal laws and programs in light of Section 15 of the Charter, which guarantees legal equality and prohibits discrimination. Its report, *Equality for All*, containing 85 recommendations, was tabled in Parliament on October 25, 1985.

His work with the Committee on Election Law and Redistribution led to an amendment to Section 51 of the Constitution, dealing with the formula for distributing seats in the House. As well, the committee's work has resulted in a white paper on reforms to the Canada Election Act.

He's found time to introduce private members' bills, including one to control smoking in public buildings and facilities.

And he's also active at the constituency level, where he's introduced programs aimed at improving the local economy, social programs for the aged and handicapped, and a regular community cable TV broadcast program.

Of his life as an MP, he says, "I love it. I feel completely in my element."

The son of a Bracebridge, Ontario, newspaper publisher who was elected to the Ontario legislature, Patrick says he's wanted to be in Parliament since he was 12. That interest is partly what brought him to Carleton in the mid-'60s.

"When I discovered that Carleton had a journalism program, it seemed the obvious place to go for me," he says.

Ironically, though, he never made it into the School of Journalism.

"It was registration and I was in one of those long lineups," he recalls.

"I got to talking with a fellow beside me, Larry Pratt (BAHons/67, and now a professor at the University of Alberta)... When I told him I was taking journalism, he asked why didn't I study economics, history, political science, and so on, so that when I got

to writing a story, I'd have more background.

"I couldn't think of any reason to disagree, so I stepped over to his line."

He has worked as a journalist, though, in Ontario, Quebec, and Saskatchewan. For the past several years, he has written a weekly

on election law in Canada and has two more books "in the works."

As well, he is the Chairman of the Northern Institute for Public Policy Research, a conservative-oriented policy group, and is the editor of the Northern Institute Quarterly.

Prior to his election, he was a partner in the Canadian law firm, Fraser & Beatty. His practice included communications law, immigration, election law, and corporate and commercial law.

He also had an extensive law practice in the Western Arctic, and is a member of both the Ontario and Northwest Territories bars.

In addition to his degree in economics and political science from Carleton, he holds a Masters degree in Canadian history and a law degree from the University of Toronto.

He studied French Canadian literature at Université de Montréal, and international law at the Academy of the International Court of Justice in The Hague, The Netherlands.

Married for 16 years, he met his wife Corinne in New York, where she was posted in the Foreign Service of The Netherlands dealing with cultural affairs.

Even a brief interview with him leaves you with the feeling that he's totally dedicated to his role as an MP.

"Members of Parliament have to be an ombudsman for their constituents, dealing with their problems and proposals," he says. "But they also have to contribute something to the national level, to committees, debates in the House and so on.

"It would be a failure of the system if MPs performed in only one of these areas.

"There is a tension in time, but it's not a conflict.

"It's simply having to do two full-time jobs in two different cities. When I come here, there's so much going on, it would be easy to forget about the riding.

"I could have stood for election when I was 25, a fresh kid from Carleton. But I waited till I was 39 so that I would be able to bring more to the national level.

"Everything I've done has been to prepare myself to be in Parliament."

For him, the reality has so far lived up to his boyhood dream. "I enjoy it," he says, "and hope I can make a difference for the people of Etobicoke-Lakeshore."



Patrick Boyer

newspaper column and contributed articles to a number of Canadian periodicals.

With his own background in journalism, and his current role as an MP, he's in a unique position to comment on how the government is reported in Canada.

"Every government feels the press does a bad job," he says right off the top.

"But beyond that starting position, I do have some concerns that the media in Canada are placing too much emphasis on reporting reactions, rather than conveying information.

"As a result, people are living off reactive commentary and the colour story, rather than substantive information. We have poorly informed public discussion of the issues."

The author of three books, *Political Rights*, *Lawmaking by the People*, and *Money and Message*, he's about to publish a fourth book



# Through the Years

61

**Freda J. Mellan, BA/61**, retired from teaching in North Dundas District High School in 1977 and has developed a small but busy travel agency in Iroquois, Ontario, called Dundas Tours.

64

**Frances Clare Davies (Aitkens), BSc/64**, has been living at the NATO base in Lahr, West Germany since 1981 with her husband Dave and sons Huw (18) and Owain (16). In 1980 they spent the year travelling all over Europe in a VW van.

65

**Michael Rayner, BA/65**, Comptroller General of Canada, gave the 1986 distinguished management accounting lecture at the University of Waterloo in May. He was named Comptroller General in March 1985.

66

**Jackie Gelling, BA/66**, recently moved to Montreal where her husband has accepted a position with Via Rail.

**Allan K. McDougall, DPA/66, MA/67, BAHons/62 (McGill), PhD (Toronto)**, a professor in the Department of Political Science at the University of Western Ontario, became the new President of their Faculty Association starting May 1, 1986. He is the author of the recently published book, *John P. Roberts: His Life and Government*.

**E.N. Eneanya Ozumba, CPSS/66**, retired from the Civil Service of the Anambra State of Nigeria in 1982 after 36 years. His last position was that of Deputy Permanent Secretary. He is now in private business as Managing-Director of Enenkyonye Enterprises which deals in distributive trade.

67

**Klaus M. Buechner, BEng/67**, joined Northern Telecom in 1967 after graduation. He moved to Bell-Northern Research in January 1982 as Vice-President, Terminal Products Division, and in October 1982 was named Group Vice-President, Office Products. In 1986 he became Managing Director with Northern Telecom in Germany.

**Susan Hendry, BA/67, MA/69** is living in Washington, D.C. and is working as a translator with the Inter-American Development Bank.

69

**George D. Anderson, BA/69**, was appointed President of the Canadian Mortgage and

Housing Corporation commencing April 1, 1986.

**Rose Marie Earle, BA/69**, has been appointed an assistant vice president of a consulting firm Johnson & Higgins Willis Faber in Toronto. She handles a variety of assignments designed to help the firm's clients communicate their group benefits and pension plans to employees.

**Karen Murphy (Lintell), BA/69**, and her husband **Bob, BAHons/69**, are pleased to announce the birth of their daughter, Shannon Jaye, on February 25, 1986, a sister for Blake and Grant.

70

**Sharon Anderson (Soble), BAHons/70**, married Albert Olmstead on December 24, 1982. Their daughter, Rebecca Jade Olmstead, was born on March 31, 1985. Sharon practised law in Ontario for nine years as a partner in the law firm of Anderson & Goss. She has moved to the Renfrew area where she is associated with the law firm of McNab, Stewart & Prince.

**Heather J. MacLean, BA/70**, has been Director of Personnel for the Canadian Red Cross Society (Ontario Division), in Toronto for the past four years.

**Janet Walker (Haliburton), BScHons/70**, and **Graham Charles Walker, BScHons/70**, are pleased to announce the birth of their first child, Gordon Andrew, on July 9, 1986. They have accepted positions as housemasters at the undergraduate women's dorm at MIT. As of July 1, 1986, Graham was promoted to full professor in the Biology Department at MIT.

71

**John Attack, BA/71**, graduated from Ontario Veterinary College in 1977. He is married to his associate Dr. Linda Berthiaume, DVM, and has relocated his Bellevue Equine Clinic to Millarbrooke Farm in Perth, Ontario.

**Shannon E. Farrell, BA/71, BTh/76, MTh/79**, is the first Canadian woman to have received a Licence in Sacred Scripture from the Pontifical Biblical Institute in Rome. She began teaching at St. Paul's University, Ottawa, in the Faculty of Theology in September.

**Edwin Wong, MA/71**, is executive vice-president for Econolynx International Ltd. This Ottawa research and consulting firm with a dozen employees has masterminded an international \$42-million (US) venture to manufacture fibreboard in China.

73

**Henry S. Brown, BAHons/73, MA/76, LLB/79**, has been appointed Executive Assistant to the Minister of Transport, Hon. John C. Crosbie.

**Wayne Casselman, BSc/73** and **Janice (Relf), BSc/73, BScHons/76**, are pleased to announce the birth of their daughter, Kristen Heather, on January 12, 1986, in Ottawa.

**Robert G. Duff, BAHons/73**, worked with the Ministry of Lands, Parks and Housing for three years. He is now employed as an economist in the Project Analysis Branch, Energy Resources Division for the Ministry of Energy, Mines and Petroleum Resources, in Victoria, British Columbia.

**J. Michael Golding, BA/73**, has been appointed Vice-President, Sales for ENCON Insurance Managers Inc.

74

**Peter Churchill-Smith, BCom/74, MBA (Western)**, has been appointed Vice-President with merchant banking responsibilities with The Mutual Trust Company.

**Krystyna W. Fedosejevs (Dynowski), BA/74, BAHons/76**, and her husband are pleased to announce the birth of a baby boy, Eric Theodore, on April 4, 1986.



David Rivington, with wife, Suthip

**David Rivington, BEng/74**, married Suthip Kamnertuthai of Songkla Thailand on December 7, 1985. He is working in the southern part of Thailand.

**Wayne Robertson, BA/74 (SPC), BSW/77 (Calgary), LLB/81 (Alberta)**, married Huguette Cloutier of St. Jerome, Quebec in 1980. They have two children: Sarah 4; and Simon 2. Wayne is working as a lawyer doing litigation with the firm of Lindsay Kenney in Vancouver.

75

**Mary Eastman (Patrick), BA/75 (SPC)**, and **Michael, BCom/76**, are pleased to announce the birth of a son, Stephen Nicholas, on January 29, 1986, a brother for Jenny (5) and Kate (3).

**Peter Mills, APR, BJ/75**, is Supervisor of Public Relations with the Carleton Board of Education. He has recently been accredited by the Canadian Public Relations Society, and was honoured by the Canadian Association of Communicators in Education (CACE) for his role in helping to establish this new national organization.

76

**Marianne Ackerman, BAHons/76**, theatre critic for the *Montreal Gazette*, won the



## T-SHIRTS

50/50 poly-cotton

1. Grey with red print  
1A Adults S/M/L/XL \$8.95  
1Y Youth S/M/L \$8.95
2. Grey with red & black print  
2A Adults S/M/L/XL \$8.95  
2Y Youth S/M/L \$6.95

## SWEATCLOTHES

50/50 poly-cotton

Red, navy, royal and grey

### 3. SWEATPANTS

- 3A Adults S/M/L/XL \$23.95  
3Y Youth S/M/L \$17.95

### 4. HOODED SWEATSHIRT

- 4A Adults S/M/L/XL \$26.95  
4Y Youth S/M/L \$19.95

### 5. CREWNECK SWEATSHIRT

- 5A Adults S/M/L/XL \$22.95  
5Y Youth S/M/L \$17.95

### 6. RUGBY SHIRT

- 6A 100% cotton with embroidered lettering. White with black & red stripes. (10% shrinkage minimum). Adult sizes only S/M/L/XL \$44.95

### 7. THE JOY OF FLEX, 2nd ed.

- 7 A thinking man's and woman's guide to bodybuilding, by Greg Poole and Gareth Llewellyn. \$10.95

Prices in effect till  
September 1, 1987

CARLETON  
ATHLETICS

CARLETON UNIVERSITY

PROPERTY OF  
CARLETON  
ATHLETICS

CARLETON  
ATHLETICS

3

2

1

4

The Joy of Flex



7

CARLETON

5

6



Carleton University

## PLEASE SEND ME THE FOLLOWING ITEMS:

item #	size	col.	quant.	x	price	subtotal	tax	total
--------	------	------	--------	---	-------	----------	-----	-------

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

NOTE: Add \$2.00 per item to a maximum of \$6.00 for handling. Ontario residents add 7% sales tax on adult items only. Please make certified cheque or money order payable to Carleton University.

VISA NO. \_\_\_\_\_

Expiry \_\_\_\_\_ Signature \_\_\_\_\_

Name \_\_\_\_\_  
(please print)

Apt./Street \_\_\_\_\_

City \_\_\_\_\_

Prov./Postal Code \_\_\_\_\_

RETURN TO: DEPARTMENT OF ATHLETICS,  
CARLETON UNIVERSITY, OTTAWA, ONTARIO K1S 5B6



Nathan Cohen award for excellence in theatre criticism. She joined the *Gazette* in 1983. **Michael Bennett**, MSW/76, was called to the Ontario Bar in April, 1986. He is with the firm of H.M. Lang, Q.C., in Sault Ste Marie. **Brian Derrah**, DPA/76, MA/77, is Senior Assistant for Manitoba in the office of the Honourable Jake Epp, Minister of National Health and Welfare and Senior Minister for Manitoba.

**Michael Eastman**, BCom/76, and **Mary (Patrick)**, BA/75 (SPC), are pleased to announce the birth of a son, Stephen Nicholas, on January 29, 1986, a brother for Jenny (5) and Kate (3).

**Andrew Herbst**, BEng/76, MEng/81, and his wife Julie are pleased to announce the birth of their second daughter, Heidi Marie, on May 1, 1986. Andrew works for Multitech as a process design engineer on Western Energy's Advanced Clean Coal Demonstration Project in Butte, Montana.

**William Skinner**, BAHons/76, is working as a senior evaluation analyst, Office of the Comptroller General in Ottawa.

**Robert Whitlock**, BArch/76, has been working with the City of Vancouver Planning Department since 1976. He is a local area planner in the Mount Pleasant neighbourhood of Vancouver.

77

**Jean Classen**, BA/77, moved to Victoria, British Columbia in 1982. She is now entering the University of Victoria where she is hoping to get into the School of Child Care.

78

**Kevin C. Carter**, BA/78 (SPC), is married to **Susan (Levasseur)**, BA/79. They have one child, Andrew, born in 1984.

**Lynn Honsberger**, CA, BCom/78, is the product manager for Multiview Financial Software, a product of Cognos Incorporated. **Gregory Lindeblom**, BAHons/78, has returned from his travels and is marketing treasury services for the Bank of Nova Scotia in New York City.

79

**Catherine Armstrong**, BA/79, is enrolled at Dalhousie University doing her Masters in Library Science.

**Susan Carter (Levasseur)**, BA/79, is married to **Kevin Carter**, BA/78 (SPC). They have one child, Andrew, born in 1984.

**Mary Elliott**, BA/79, has worked with an Ottawa social agency and has been involved with volunteer groups such as the Ottawa Distress Centre for the past five years. She has been appointed the new executive director of the Big Brothers and Big Sisters Association in Cornwall, Ontario.

**Peter Mass**, BA/79, moved to Montreal from Calgary and is working as a sales manager for International Steel Trading firm. He was working with Kodak Canada selling business systems in Calgary.

**Leah E. Nolen (Nye)**, BSc/79, recently graduated from the University of Southern California, European Graduate Programs, with an MSc in Education. In 1982 she graduated with honours in Russian from the



Jean Pigott, Chairman of the National Capital Commission, addressed an Alumni Association lunch held at the National Arts Centre, June 25.

Defense Language Institute Foreign Language Center, Presidio of Monterey, California. She is married to Michael R. Nolen and they are the parents of two sons, Graham Richard and Lars Nye.

**Reuven (Robert) Tradburks**, BAHons/79, received his Rabbinic Ordination at Yeshiva University, New York in 1985. This past year was spent teaching Jewish Studies at Yeshiva University. He has assumed the position of Rabbi at the Young Israel of Staten Island, New York. He is married and has two children.

80

**Kevin Church**, BArch/80, and **Bonnie** are pleased to announce the birth of their first child, Laura Lee Ann, on April 8, 1986. Kevin is working with C.A. Ventin Architects in Simcoe, Ontario.

**Terry Duguid**, BScHons/80, MSc (Calgary), has been hired to co-ordinate the private land gypsy moth spraying program in Leeds and Grenville County in Ontario.

**Mark H. Goldberg**, MSc/80, worked for Bell Canada in Windsor and London and for General Motors in Detroit since graduation. In June 1986, he moved to New Jersey and joined the AT&T Bell Laboratories as a member of the technical staff. He is married and has a one-year-old daughter.

**Janet L. Hetherington**, BJ/80, has been working as an Advertising and Promotion Officer with a major Crown corporation for the past three years. She previously worked as Associate Editor of *Canadian Consumer*.

**B. Lorraine Kirby (Scott)**, BA/80, is enrolled (part-time) in an MBA program at Dalhousie University.

81

**Walter Da Rio**, BA/81, has recently been accepted as a police officer with the Carleton Place police force.

**R. Kyle Friesen**, BAHons/81, LLB/84 (Victoria), and his wife Vivian recently moved back to Ottawa. Kyle is a lawyer with the federal government.

**Drew Webster**, BEng/81, MBA/85 (Queen's), has been promoted to Senior Engineer of Manufacturing Engineering at the General Motors Engine Plant in St. Catharines, Ontario.

82

**Stephen John Kennedy**, BA/82, received his masters degree in counselling and education from the University of Ottawa in June 1985. He has been employed in the social work field for the past eight years.

**Nora Maskey (Maynard)**, BA/82, graduated from SAIT in Calgary in May 1985 with a diploma in Journalism Arts. She was married in August 1985 and is pleased to announce the birth of a baby girl on March 13, 1986.

**Alan Jeffrey Schwarz**, BA/82, has travelled to the Middle East and Europe, written a book, two plays and is currently finishing his first screen play. He spent two years as Director of Media and Public Relations for MTU-Channel 47 in Toronto. He left there to establish his own media and public relations firm called "Wafwot Communications". He currently represents The Life Channel.

**Peter Stuart-Sheppard**, BAHons/82, BEd (Western) will begin teaching English in Ajax, Ontario, in September, 1986.

**Artnarong Thansandote**, PhD/82, is the father of two children, Leo and Praew. He is the only professor teaching courses in Communication Engineering at Khon Kaen University in Thailand. In March 1986, Art had an opportunity to welcome and entertain Naomi Griffiths, Dean of Arts at Carleton, who dropped in while on her way from India back to Canada to find out how Carleton can assist KCU.

83

**Stephen Bindman**, BJ/83, has been working as a parliamentary reporter specializing in legal affairs for *The Citizen* since January, 1985.



**Bobby R. Boychuk**, MEng/83, has assumed the responsibility of Deputy Project Manager for EHF Satellite Communications Research and Development at the Defence Research Establishment in Ottawa.

**Nancy Lynne Miles**, BA/83, received her Bachelor of Laws degree *cum laude* from the University of Ottawa on June 7, 1986.

**Shirley Moulton**, BA/83, graduated from Ontario Bible College, Willowdale, Ontario with a Bachelor of Theology in Missions. She was awarded entrance into the Delta Epsilon Chi Honor Society of the American Association of Bible Colleges, the Harold E.P. Warren Scholarship for Missions and the William R. Quinn Memorial Award. She went on a summer mission to Malawi, Africa to work in Likubulu Bible Institute in Blantyre.

**Giuliano Tolusso**, BJ/83, married **Susan Turner**, BJ/84, in May 1984. Giuliano is a public relations consultant with the Hilda Wilson Group in Toronto.

84

**Genevieve Butterworth**, BA/84, is enjoying life in the Maritimes. She is Assistant Superintendent at a minimum security institution of 200 inmates.

**S. Ronald G. Edwards**, BCom/84, accepted the position of Technical Director of the Manitoba Table Tennis Association in Winnipeg, starting August 1, 1986.

**Gordon Holder**, BJ/84, worked for two

years with *The Daily Graphic* in Portage La Prairie. He is now working for the Sports Department of the *Brandon Sun* in Brandon, Manitoba.

**Bob Milling**, BA/84, is working as a legislative assistant to John Parry, Member of Parliament for Kenora-Rainy River.

**Paul Proderick**, BA/84, BEd (Ottawa), has accepted a teaching position with the Frontenac Lennox & Addington Roman Catholic School Board. He is working on a novel entitled *The Life and Times of Joe Bushey*.

**Douglas Skene**, BID/84, won \$500 second prize for his table and chair entitled "Tea Served" in the Formica Canada and Via Design Colour and Form competition held in Montreal recently.

**David Smith**, BAHons/84, MBA/86 (Western), has accepted a position as a Management Consultant with Touche Ross & Partners in Toronto.

**Susan Turner**, BJ/84, married **Giuliano Tolusso**, BJ/83, in May 1984. Susan is a reporter/editor with *CBC Radio News* in Regina.

85

**Medhi Asgharzaden**, BEng/85 was one of 150 students hired by Northern Telecom Canada Limited.

**Margaret Fleming (Ironside)**, BA/85, enrolled in the MSW Program at Carleton in the Fall of 1985. She is moving to Mallory-

town, and expects to complete her thesis and graduate in 1987.

**David Mask**, BCom/85, was supervisor of the Canada Employment Centre for students in Renfrew and area.

**Lorraine R. Montgomery**, BA/85, received a BEd *magna cum laude* from the University of Ottawa in June, 1986.

**Stella Ng**, MSW/85, was festival coordinator for the Women's Festival, the first of its kind in Vancouver's Chinese-Canadian community, held on March 8, 1986. Stella is living in Burnaby, British Columbia.

86

**Andrea Doucet**, MA/86, received a post-graduate International Development Scholarship from the Canadian International Development Agency (CIDA) to undertake research on the subject of "women's roles in relation to water supply in the developing countries." She is currently in Bolivia and Peru undertaking field work as part of her scholarship.

**Johanna Louise Provost**, BJ/86, has accepted a position with CTV National News in Toronto.

**Andrew Vanderwal**, MA/86, was appointed Director of Trade Research with the Canadian Import Association in Toronto in May 1986.

## News & Moves

Take advantage of the services and benefits available to Carleton alumni by maintaining your current address with the Alumni Relations Office. Simply fill out and return this coupon to the address below. We're looking forward to hearing from you.

### NAME

Title first name last name previous name

Degree Major Year of graduation

### HOME ADDRESS

apartment/street city

province/country postal code telephone

### BUSINESS ADDRESS

position company

street city telephone

### PERSONAL NEWS

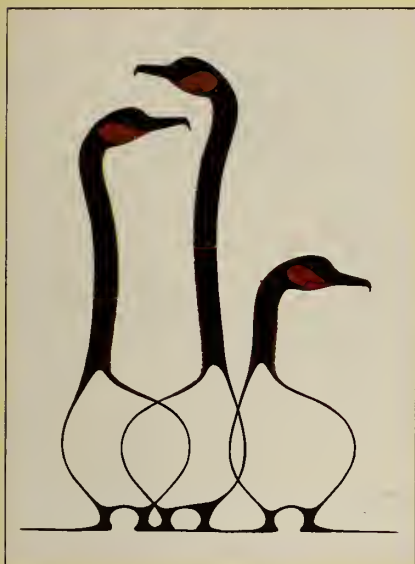
This space is for your comments. Let us know what you think about the *Alumni News*, and about alumni programs you'd like to see offered.

Clip and return to: Alumni Relations Office, Carleton University, Ottawa, Canada, K1S 5B6.



# Woodland Indian Artist Benjamin Chee Chee

Alumni Media is pleased to present 9 reproductions of works by the late Benjamin Chee Chee.  
These are the only reproductions authorized by the artist's estate.



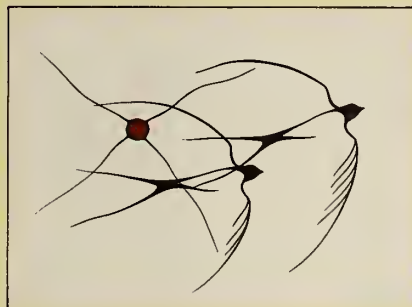
A Friends

A mainly self-taught artist, Chee Chee was a prominent member of the second generation of woodland Indian painters.

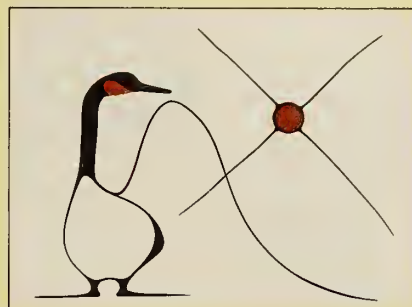
Unlike many of his contemporaries who employed direct and "primitive" means, Chee Chee's work was influenced by modern abstraction. His style reduced line and image in keeping with international modern art.

At the age of 32, at the height of his success, Chee Chee died tragically by suicide.

These reproductions are printed on high quality, textured stock and measure 48 cm x 61 cm (19"x24").



B Swallows



C Good Morning



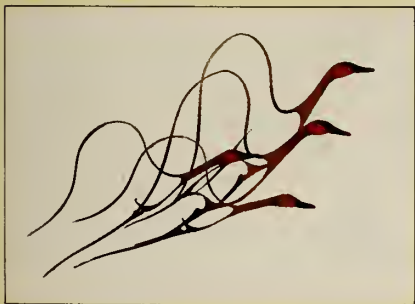
D Proud Male



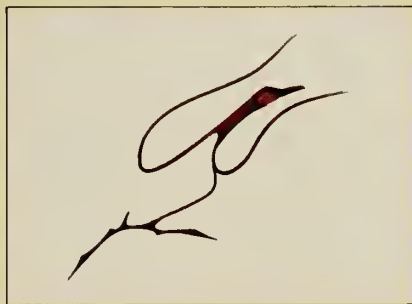
E Mother & Child



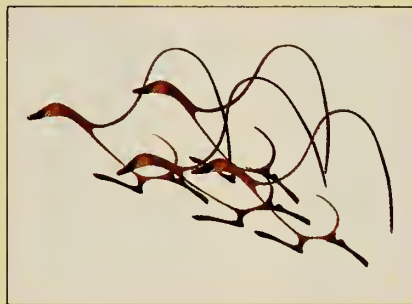
F Sun Bird



G Spring Flight



H Wait For Me



I Autumn Flight

Please send me the following Benjamin Chee Chee print reproductions at \$23.95 each or \$88.00 for any four, plus \$4.95 for handling and shipping (overseas: \$7.50). Ontario residents please add 7% sales tax to combined cost of print(s) plus shipping/handling.

Indicate quantities: A B C D E F G H I

• • • • •

Cheque or money order to Alumni Media enclosed:

Charge to my MasterCard, Visa or American Express Account No.

Name

Street

Apt.

Expiry Date:

City

Prov.

P. Code

Signature

Alumni Media, 124 Ava Rd., Toronto, Ontario M6C 1W1 (416) 781-6661

**UNCONDITIONAL MONEY-BACK GUARANTEE.**

If you are not satisfied, please return your purchase to us and your money will be returned (less handling and postage).



# CARRINGTON AGED TO PERFECTION



Only time can make a whisky  
this smooth and mellow.  
Only you can appreciate it.  
Carrington Canadian Whisky.

